

SEQUENCE LISTING

<110> Brad St. Croix
Bert Vogelstein
Kenneth Kinzler

<120> ENDOTHELIAL CELL EXPRESSION PATTERNS

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<210> 177
 <211> 757
 <212> PRT
 <213> Homo sapiens

<400> 177
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 Gly Gln Asp Pro Trp Ala Ala Glu Pro Arg Ala Ala Cys Gly Pro Ser
 20 25 30
 Ser Cys Tyr Ala Leu Phe Pro Arg Arg Arg Thr Phe Leu Glu Ala Trp
 35 40 45
 Arg Ala Cys Arg Glu Leu Gly Gly Asp Leu Ala Thr Pro Arg Thr Pro
 50 55 60

Glu Glu Ala Gln Arg Val Asp Ser Leu Val Gly Ala Gly Pro Ala Ser
 65 70 75 80
 Arg Leu Leu Trp Ile Gly Leu Gln Arg Gln Ala Arg Gln Cys Gln Leu
 85 90 95
 Gln Arg Pro Leu Arg Gly Phe Thr Trp Thr Thr Gly Asp Gln Asp Thr
 100 105 110
 Ala Phe Thr Asn Trp Ala Gln Pro Ala Ser Gly Gly Pro Cys Pro Ala
 115 120 125
 Gln Arg Cys Val Ala Leu Glu Ala Ser Gly Glu His Arg Trp Leu Glu
 130 135 140
 Gly Ser Cys Thr Leu Ala Val Asp Gly Tyr Leu Cys Gln Phe Gly Phe
 145 150 155 160
 Glu Gly Ala Cys Pro Ala Leu Gln Asp Glu Ala Gly Gln Ala Gly Pro
 165 170 175
 Ala Val Tyr Thr Thr Pro Phe His Leu Val Ser Thr Glu Phe Glu Trp
 180 185 190
 Leu Pro Phe Gly Ser Val Ala Ala Val Gln Cys Gln Ala Gly Arg Gly
 195 200 205
 Ala Ser Leu Leu Cys Val Lys Gln Pro Glu Gly Gly Val Gly Trp Ser
 210 215 220
 Arg Ala Gly Pro Leu Cys Leu Gly Thr Gly Cys Ser Pro Asp Asn Gly
 225 230 235 240
 Gly Cys Glu His Glu Cys Val Glu Glu Val Asp Gly His Val Ser Cys
 245 250 255
 Arg Cys Thr Glu Gly Phe Arg Leu Ala Ala Asp Gly Arg Ser Cys Glu
 260 265 270
 Asp Pro Cys Ala Gln Ala Pro Cys Glu Gln Gln Cys Glu Pro Gly Gly
 275 280 285
 Pro Gln Gly Tyr Ser Cys His Cys Arg Leu Gly Phe Arg Pro Ala Glu
 290 295 300
 Asp Asp Pro His Arg Cys Val Asp Thr Asp Glu Cys Gln Ile Ala Gly
 305 310 315 320
 Val Cys Gln Gln Met Cys Val Asn Tyr Val Gly Gly Phe Glu Cys Tyr
 325 330 335
 Cys Ser Glu Gly His Glu Leu Glu Ala Asp Gly Ile Ser Cys Ser Pro
 340 345 350
 Ala Gly Ala Met Gly Ala Gln Ala Ser Gln Asp Leu Gly Asp Glu Leu
 355 360 365
 Leu Asp Asp Gly Glu Asp Glu Glu Asp Glu Asp Glu Ala Trp Lys Ala
 370 375 380
 Phe Asn Gly Gly Trp Thr Glu Met Pro Gly Ile Leu Trp Met Glu Pro
 385 390 395 400
 Thr Gln Pro Pro Asp Phe Ala Leu Ala Tyr Arg Pro Ser Phe Pro Glu
 405 410 415
 Asp Arg Glu Pro Gln Ile Pro Tyr Pro Glu Pro Thr Trp Pro Pro
 420 425 430
 Leu Ser Ala Pro Arg Val Pro Tyr His Ser Ser Val Leu Ser Val Thr
 435 440 445
 Arg Pro Val Val Val Ser Ala Thr His Pro Thr Leu Pro Ser Ala His
 450 455 460
 Gln Pro Pro Val Ile Pro Ala Thr His Pro Ala Leu Ser Arg Asp His
 465 470 475 480
 Gln Ile Pro Val Ile Ala Ala Asn Tyr Pro Asp Leu Pro Ser Ala Tyr
 485 490 495
 Gln Pro Gly Ile Leu Ser Val Ser His Ser Ala Gln Pro Pro Ala His
 500 505 510
 Gln Pro Pro Met Ile Ser Thr Lys Tyr Pro Glu Leu Phe Pro Ala His
 515 520 525
 Gln Ser Pro Met Phe Pro Asp Thr Arg Val Ala Gly Thr Gln Thr Thr
 530 535 540
 Thr His Leu Pro Gly Ile Pro Pro Asn His Ala Pro Leu Val Thr Thr

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Leu Gly Ala Gln	Leu Pro Pro Gln Ala	Pro Asp Ala Leu Val	Leu Arg			
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Thr Gln Ala Thr	Gln Leu Pro Ile Ile	Pro Thr Ala Gln Pro	Ser Leu			
	580	585	590			
Thr Thr Thr Ser	Arg Ser Pro Val Ser	Pro Ala His Gln Ile	Ser Val			
	595	600	605			
Pro Ala Ala Thr	Gln Pro Ala Ala Leu	Pro Thr Leu Leu Pro	Ser Gln			
	610	615	620			
Ser Pro Thr Asn	Gln Thr Ser Pro Ile	Ser Pro Thr His Pro	His Ser			
625	630	635	640			
Lys Ala Pro Gln	Ile Pro Arg Glu Asp	Gly Pro Ser Pro Lys	Leu Ala			
	645	650	655			
Leu Trp Leu Pro	Ser Pro Ala Pro Thr	Ala Ala Pro Thr	Ala Leu Gly			
	660	665	670			
Glu Ala Gly Leu	Ala Glu His Ser Gln	Arg Asp Asp Arg	Trp Leu Leu			
	675	680	685			
Val Ala Leu Leu	Val Pro Thr Cys Val	Phe Leu Val Val	Leu Leu Ala			
	690	695	700			
Leu Gly Ile Val	Tyr Cys Thr Arg Cys	Gly Pro His Ala Pro	Asn Lys			
705	710	715	720			
Arg Ile Thr Asp	Cys Tyr Arg Trp Val	Ile His Ala Gly Ser	Lys Ser			
	725	730	735			
Pro Thr Glu Pro	Met Pro Pro Arg Gly	Ser Leu Thr Gly	Val Gln Thr			
	740	745	750			
Cys Arg Thr Ser	Val					
	755					

<210> 178
 <211> 278
 <212> PRT
 <213> Homo sapiens

<400> 178

Met Pro Ala Ser	Leu Ala Leu Leu Gln	Pro Arg Ala Met	Met Lys Thr
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Leu Ser Ser Gly	Asn Cys Thr Leu Ser	Val Pro Ala Lys	Asn Ser Tyr
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Arg Met Val Val	Leu Gly Ala Ser Arg	Val Gly Lys Ser	Ile Val
	35	40	45
Ser Arg Phe Leu	Asn Gly Arg Phe Glu	Asp Gln Tyr Thr	Pro Thr Ile
	50	55	60
Glu Asp Phe His	Arg Lys Val Tyr Asn	Ile Arg Gly Asp	Met Tyr Gln
65	70	75	80
Leu Asp Ile Leu	Asp Thr Ser Gly Asn	His Pro Phe Pro	Ala Met Arg
	85	90	95
Arg Leu Ser Ile	Leu Thr Gly Asp Val	Phe Ile Leu Val	Phe Ser Leu
	100	105	110
Asp Asn Arg Glu	Ser Phe Asp Glu Val	Lys Arg Leu Gln	Lys Gln Ile
	115	120	125
Leu Glu Val Lys	Ser Cys Leu Lys Asn	Lys Thr Lys Glu	Ala Ala Glu
	130	135	140
Leu Pro Met Val	Ile Cys Gly Asn Lys	Asn Asp His Gly	Glu Leu Cys
145	150	155	160
Arg Gln Val Pro	Thr Thr Glu Ala Glu	Leu Leu Val Ser	Gly Asp Glu
	165	170	175
Asn Cys Ala Tyr	Phe Glu Val Ser Ala	Lys Lys Asn Thr	Asn Val Asp
	180	185	190
Glu Met Phe Tyr	Val Leu Phe Ser Met	Ala Lys Leu Pro	His Glu Met
	195	200	205
Ser Pro Ala Leu	His Arg Lys Ile Ser	Val Gln Tyr Gly	Asp Ala Phe

210 215 220
 His Pro Arg Pro Phe Cys Met Arg Arg Val Lys Glu Met Asp Ala Tyr
 225 230 235 240
 Gly Met Val Ser Pro Phe Ala Arg Arg Pro Ser Val Asn Ser Asp Leu
 245 250 255
 Lys Tyr Ile Lys Ala Lys Val Leu Arg Glu Gly Gln Ala Arg Glu Arg
 260 265 270
 Asp Lys Cys Thr Ile Gln
 275

<210> 179
 <211> 1002
 <212> PRT
 <213> Homo sapiens

<400> 179
 Met Arg Gly Glu Leu Trp Leu Leu Val Leu Val Leu Arg Glu Ala Ala
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 Arg Ala Leu Ser Pro Gln Pro Gly Ala Gly His Asp Glu Gly Pro Gly
 20 25 30
 Ser Gly Trp Ala Ala Lys Gly Thr Val Arg Gly Trp Asn Arg Arg Ala
 35 40 45
 Arg Glu Ser Pro Gly His Val Ser Glu Pro Asp Arg Thr Gln Leu Ser
 50 55 60
 Gln Asp Leu Gly Gly Gly Thr Leu Ala Met Asp Thr Leu Pro Asp Asn
 65 70 75 80
 Arg Thr Arg Val Val Glu Asp Asn His Ser Tyr Tyr Val Ser Arg Leu
 85 90 95
 Tyr Gly Pro Ser Glu Pro His Ser Arg Glu Leu Trp Val Asp Val Ala
 100 105 110
 Glu Ala Asn Arg Ser Gln Val Lys Ile His Thr Ile Leu Ser Asn Thr
 115 120 125
 His Arg Gln Ala Ser Arg Val Val Leu Ser Phe Asp Phe Pro Phe Tyr
 130 135 140
 Gly His Pro Leu Arg Gln Ile Thr Ile Ala Thr Gly Gly Phe Ile Phe
 145 150 155 160
 Met Gly Asp Val Ile His Arg Met Leu Thr Ala Thr Gln Tyr Val Ala
 165 170 175
 Pro Leu Met Ala Asn Phe Asn Pro Gly Tyr Ser Asp Asn Ser Thr Val
 180 185 190
 Val Tyr Phe Asp Asn Gly Thr Val Phe Val Val Gln Trp Asp His Val
 195 200 205
 Tyr Leu Gln Gly Trp Glu Asp Lys Gly Ser Phe Thr Phe Gln Ala Ala
 210 215 220
 Leu His His Asp Gly Arg Ile Val Phe Ala Tyr Lys Glu Ile Pro Met
 225 230 235 240
 Ser Val Pro Glu Ile Ser Ser Ser Gln His Pro Val Lys Thr Gly Leu
 245 250 255
 Ser Asp Ala Phe Met Ile Leu Asn Pro Ser Pro Asp Val Pro Glu Ser
 260 265 270
 Arg Arg Arg Ser Ile Phe Glu Tyr His Arg Ile Glu Leu Asp Pro Ser
 275 280 285
 Lys Val Thr Ser Met Ser Ala Val Glu Phe Thr Pro Leu Pro Thr Cys
 290 295 300
 Leu Gln His Arg Ser Cys Asp Ala Cys Met Ser Ser Asp Leu Thr Phe
 305 310 315 320
 Asn Cys Ser Trp Cys His Val Leu Gln Arg Cys Ser Ser Gly Phe Asp
 325 330 335
 Arg Tyr Arg Gln Glu Trp Asp Gly Thr Met Gly Cys Ala Gln Glu Ala
 340 345 350
 Glu Gly Gln Asp Val Arg Gly Leu Pro Gly Met Arg Thr Thr Thr Ser

Cys Ala Gln Glu Ala Glu Gly Arg Met Cys Glu Asp Phe Gln Asp Glu
 850 855 860
 Asp His Asp Ser Ala Ser Pro Asp Thr Ser Phe Ser Pro Tyr Asp Gly
 865 870 875 880
 Asp Leu Thr Thr Thr Ser Ser Ser Leu Phe Ile Asp Ser Leu Thr Thr
 885 890 895
 Glu Asp Asp Thr Lys Leu Asn Pro Tyr Ala Gly Gly Asp Gly Leu Gln
 900 905 910
 Asn Asn Leu Ser Pro Lys Thr Lys Gly Thr Pro Val His Leu Gly Thr
 915 920 925
 Ile Val Gly Ile Val Leu Ala Val Leu Leu Val Ala Ala Ile Ile Leu
 930 935 940
 Ala Gly Ile Tyr Ile Asn Gly His Pro Thr Ser Asn Ala Ala Leu Phe
 945 950 955 960
 Phe Ile Glu Arg Arg Pro His His Trp Pro Ala Met Lys Phe Arg Ser
 965 970 975
 His Pro Asp His Ser Thr Tyr Ala Glu Val Glu Pro Ser Gly His Glu
 980 985 990
 Lys Glu Gly Phe Met Glu Ala Glu Gln Cys
 995 1000

<210> 180
 <211> 5680
 <212> DNA
 <213> Homo sapiens

<400> 180

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<212> PRT

<213> Homo sapiens

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Cys	Val	Gly	Val	Lys	Asp	Phe	Asn	Glu	Thr	Gln	Leu	Ala	Arg	Ile	Ala
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Asp	Ser	Lys	Asp	His	Val	Phe	Pro	Val	Asn	Asp	Gly	Phe	Gln	Ala	Leu
			195				200					205			
Gln	Gly	Ile	Ile	His	Ser	Ile	Leu	Lys	Lys	Ser	Cys	Ile	Glu	Ile	Leu
			210			215					220				
Ala	Ala	Glu	Pro	Ser	Thr	Ile	Cys	Ala	Gly	Glu	Ser	Phe	Gln	Val	Val
225					230					235					240

Phe Leu Gly Leu Ser Leu Leu Glu Lys Leu Asp Leu Arg Asn Asn Ile
100 105 110
Ile Ser Thr Val Gln Pro Gly Ala Phe Leu Gly Leu Gly Glu Leu Lys
115 120 125
Arg Leu Asp Leu Ser Asn Asn Arg Ile Gly Cys Leu Thr Ser Glu Thr
130 135 140
Phe Gln Gly Leu Pro Arg Leu Leu Arg Leu Asn Ile Ser Gly Asn Ile
145 150 155 160
Phe Ser Ser Leu Gln Pro Gly Val Phe Asp Glu Leu Pro Ala Leu Lys
165 170 175
Val Val Asp Leu Gly Thr Glu Phe Leu Thr Cys Asp Cys His Leu Arg
180 185 190
Trp Leu Leu Pro Trp Ala Gln Asn Arg Ser Leu Gln Leu Ser Glu His
195 200 205
Thr Leu Cys Ala Tyr Pro Ser Ala Leu His Ala Gln Ala Leu Gly Ser
210 215 220
Leu Gln Glu Ala Gln Leu Cys Cys Glu Gly Ala Leu Glu Leu His Thr
225 230 235 240
His His Leu Ile Pro Ser Leu Arg Gln Val Val Phe Gln Gly Asp Arg
245 250 255
Leu Pro Phe Gln Cys Ser Ala Ser Tyr Leu Gly Asn Asp Thr Arg Ile
260 265 270
Arg Trp Tyr His Asn Arg Ala Pro Val Glu Gly Asp Glu Gln Ala Gly
275 280 285
Ile Leu Leu Ala Glu Ser Leu Ile His Asp Cys Thr Phe Ile Thr Ser
290 295 300
Glu Leu Thr Leu Ser His Ile Gly Val Trp Ala Ser Gly Glu Trp Glu
305 310 315 320
Cys Thr Val Ser Met Ala Gln Gly Asn Ala Ser Lys Lys Val Glu Ile
325 330 335
Val Val Leu Glu Thr Ser Ala Ser Tyr Cys Pro Ala Glu Arg Val Ala
340 345 350
Asn Asn Arg Gly Asp Phe Arg Trp Pro Arg Thr Leu Ala Gly Ile Thr
355 360 365
Ala Tyr Gln Ser Cys Leu Gln Tyr Pro Phe Thr Ser Val Pro Leu Gly
370 375 380
Gly Gly Ala Pro Gly Thr Arg Ala Ser Arg Arg Cys Asp Arg Ala Gly
385 390 395 400
Arg Trp Glu Pro Gly Asp Tyr Ser His Cys Leu Tyr Thr Asn Asp Ile
405 410 415
Thr Arg Val Leu Tyr Thr Phe Val Leu Met Pro Ile Asn Ala Ser Asn
420 425 430
Ala Leu Thr Leu Ala His Gln Leu Arg Val Tyr Thr Ala Glu Ala Ala
435 440 445
Ser Phe Ser Asp Met Met Asp Val Val Tyr Val Ala Gln Met Ile Gln
450 455 460
Lys Phe Leu Gly Tyr Val Asp Gln Ile Lys Glu Leu Val Glu Val Met
465 470 475 480
Val Asp Met Ala Ser Asn Leu Met Leu Val Asp Glu His Leu Leu Trp
485 490 495
Leu Ala Gln Arg Glu Asp Lys Ala Cys Ser Arg Ile Val Gly Ala Leu
500 505 510
Glu Arg Ile Gly Gly Ala Ala Leu Ser Pro His Ala Gln His Ile Ser
515 520 525
Val Asn Ala Arg Asn Val Ala Leu Glu Ala Tyr Leu Ile Lys Pro His
530 535 540
Ser Tyr Val Gly Leu Thr Cys Thr Ala Phe Gln Arg Arg Glu Gly Gly
545 550 555 560
Val Pro Gly Thr Arg Pro Gly Ser Pro Gly Gln Asn Pro Pro Pro Glu
565 570 575
Pro Glu Pro Pro Ala Asp Gln Gln Leu Arg Phe Arg Cys Thr Thr Gly

Trp Arg Ala Cys Cys Pro Pro Ala Ser Pro Ala Ala Pro His Ala Pro
 1075 1080 1085
 Pro Arg Ala Leu Pro Ala Ala Glu Asp Gly Ser Pro Val Phe Gly
 1090 1095 1100
 Glu Gly Pro Pro Ser Leu Lys Ser Ser Pro Ser Gly Ser Ser Gly His
 1105 1110 1115 1120
 Pro Leu Ala Leu Gly Pro Cys Lys Leu Thr Asn Leu Gln Leu Ala Gln
 1125 1130 1135
 Ser Gln Val Cys Glu Ala Gly Ala Ala Ala Gly Gly Glu Gly Glu Pro
 1140 1145 1150
 Glu Pro Ala Gly Thr Arg Gly Asn Leu Ala His Arg His Pro Asn Asn
 1155 1160 1165
 Val His His Gly Arg Arg Ala His Lys Ser Arg Ala Lys Gly His Arg
 1170 1175 1180
 Ala Gly Glu Ala Cys Gly Lys Asn Arg Leu Lys Ala Leu Arg Gly Gly
 1185 1190 1195 1200
 Ala Ala Gly Ala Leu Glu Leu Leu Ser Ser Glu Ser Gly Ser Leu His
 1205 1210 1215
 Asn Ser Pro Thr Asp Ser Tyr Leu Gly Ser Ser Arg Asn Ser Pro Gly
 1220 1225 1230
 Ala Gly Leu Gln Leu Glu Gly Glu Pro Met Leu Thr Pro Ser Glu Gly
 1235 1240 1245
 Ser Asp Thr Ser Ala Ala Pro Leu Ser Glu Ala Gly Arg Ala Gly Gln
 1250 1255 1260
 Arg Arg Ser Ala Ser Arg Asp Ser Leu Lys Gly Gly Gly Ala Leu Glu
 1265 1270 1275 1280
 Lys Glu Ser His Arg Arg Ser Tyr Pro Leu Asn Ala Ala Ser Leu Asn
 1285 1290 1295
 Gly Ala Pro Lys Gly Gly Lys Tyr Asp Asp Val Thr Leu Met Gly Ala
 1300 1305 1310
 Glu Val Ala Ser Gly Gly Cys Met Lys Thr Gly Leu Trp Lys Ser Glu
 1315 1320 1325
 Thr Thr Val
 1330

<210> 189
 <211> 529
 <212> PRT
 <213> Homo sapiens

<400> 189
 Met Ala Arg Phe Pro Lys Ala Asp Leu Ala Ala Ala Gly Val Met Leu
 1 5 10 15
 Leu Cys His Phe Phe Thr Asp Gln Phe Gln Phe Ala Asp Gly Lys Pro
 20 25 30
 Gly Asp Gln Ile Leu Asp Trp Gln Tyr Gly Val Thr Gln Ala Phe Pro
 35 40 45
 His Thr Glu Glu Glu Val Glu Val Asp Ser His Ala Tyr Ser His Arg
 50 55 60
 Trp Lys Arg Asn Leu Asp Phe Leu Lys Ala Val Asp Thr Asn Arg Ala
 65 70 75 80
 Ser Val Gly Gln Asp Ser Pro Glu Pro Arg Ser Phe Thr Asp Leu Leu
 85 90 95
 Leu Asp Asp Gly Gln Asp Asn Asn Thr Gln Ile Glu Glu Asp Thr Asp
 100 105 110
 His Asn Tyr Tyr Ile Ser Arg Ile Tyr Gly Pro Ser Asp Ser Ala Ser
 115 120 125
 Arg Asp Leu Trp Val Asn Ile Asp Gln Met Glu Lys Asp Lys Val Lys
 130 135 140
 Ile His Gly Ile Leu Ser Asn Thr His Arg Gln Ala Ala Arg Val Asn
 145 150 155 160

Leu Ser Phe Asp Phe Pro Phe Tyr Gly His Phe Leu Arg Glu Ile Thr
 165 170 175
 Val Ala Thr Gly Gly Phe Ile Tyr Thr Gly Glu Val Val His Arg Met
 180 185 190
 Leu Thr Ala Thr Gln Tyr Ile Ala Pro Leu Met Ala Asn Phe Asp Pro
 195 200 205
 Ser Val Ser Arg Asn Ser Thr Val Arg Tyr Phe Asp Asn Gly Thr Ala
 210 215 220
 Leu Val Val Gln Trp Asp His Val His Leu Gln Asp Asn Tyr Asn Leu
 225 230 235 240
 Gly Ser Phe Thr Phe Gln Ala Thr Leu Leu Met Asp Gly Arg Ile Ile
 245 250 255
 Phe Gly Tyr Lys Glu Ile Pro Val Leu Val Thr Gln Ile Ser Ser Thr
 260 265 270
 Asn His Pro Val Lys Val Gly Leu Ser Asp Ala Phe Val Val Val His
 275 280 285
 Arg Ile Gln Gln Ile Pro Asn Val Arg Arg Arg Thr Ile Tyr Glu Tyr
 290 295 300
 His Arg Val Glu Leu Gln Met Ser Lys Ile Thr Asn Ile Ser Ala Val
 305 310 315 320
 Glu Met Thr Pro Leu Pro Thr Cys Leu Gln Phe Asn Arg Cys Gly Pro
 325 330 335
 Cys Val Ser Ser Ser Gly Phe Asp Arg His Arg Gln Asp Trp Val Asp
 340 345 350
 Gln Arg Cys Ser Ser Gly Phe Asp Arg His Arg Gln Asp Trp Val Asp
 355 360 365
 Ser Gly Cys Pro Glu Glu Ser Lys Glu Lys Met Cys Glu Asn Thr Glu
 370 375 380
 Pro Val Glu Thr Ser Ser Arg Thr Thr Thr Thr Ile Gly Ala Thr Thr
 385 390 395 400
 Thr Gln Phe Arg Val Leu Thr Thr Thr Arg Arg Ala Val Thr Ser Gln
 405 410 415
 Phe Pro Thr Ser Leu Pro Thr Glu Asp Asp Thr Lys Ile Ala Leu His
 420 425 430
 Leu Lys Asp Asn Gly Ala Ser Thr Asp Asp Ser Ala Ala Glu Lys Lys
 435 440 445
 Gly Gly Thr Leu His Ala Gly Leu Ile Val Gly Ile Leu Ile Leu Val
 450 455 460
 Leu Ile Val Ala Thr Ala Ile Leu Val Thr Val Tyr Met Tyr His His
 465 470 475 480
 Pro Thr Ser Ala Ala Ser Ile Phe Phe Ile Glu Arg Arg Pro Ser Arg
 485 490 495
 Trp Pro Ala Met Lys Phe Arg Arg Gly Ser Gly His Pro Ala Tyr Ala
 500 505 510
 Glu Val Glu Pro Val Gly Glu Lys Glu Gly Phe Ile Val Ser Glu Gln
 515 520 525
 Cys

<210> 190
 <211> 765
 <212> PRT
 <213> Mus musculus

<400> 190
 Met Leu Leu Arg Leu Leu Leu Ala Trp Val Ala Ala Val Pro Ala Leu
 1 5 10 15
 Gly Gln Val Pro Trp Thr Pro Glu Pro Arg Ala Ala Cys Gly Pro Ser
 20 25 30
 Ser Cys Tyr Ala Leu Phe Pro Arg Arg Arg Thr Phe Leu Glu Ala Trp
 35 40 45

Arg	Ala	Cys	Arg	Glu	Leu	Gly	Gly	Asn	Leu	Ala	Thr	Pro	Arg	Thr	Pro
50						55					60				
Glu	Glu	Ala	Gln	Arg	Val	Asp	Ser	Leu	Val	Gly	Val	Gly	Pro	Ala	Asn
65					70					75					80
Gly	Leu	Leu	Trp	Ile	Gly	Leu	Gln	Arg	Gln	Ala	Arg	Gln	Cys	Gln	Pro
			85						90					95	
Gln	Arg	Pro	Leu	Arg	Gly	Phe	Ile	Trp	Thr	Thr	Gly	Asp	Gln	Asp	Thr
			100					105					110		
Ala	Phe	Thr	Asn	Trp	Ala	Gln	Pro	Ala	Thr	Glu	Gly	Pro	Cys	Pro	Ala
		115					120					125			
Gln	Arg	Cys	Ala	Ala	Leu	Glu	Ala	Ser	Gly	Glu	His	Arg	Trp	Leu	Glu
		130				135					140				
Gly	Ser	Cys	Thr	Leu	Ala	Val	Asp	Gly	Tyr	Leu	Cys	Gln	Phe	Gly	Phe
145					150					155					160
Glu	Gly	Ala	Cys	Pro	Ala	Leu	Pro	Leu	Glu	Val	Gly	Gln	Ala	Gly	Pro
				165					170					175	
Ala	Val	Tyr	Thr	Thr	Pro	Phe	Asn	Leu	Val	Ser	Ser	Glu	Phe	Glu	Trp
			180					185					190		
Leu	Pro	Phe	Gly	Ser	Val	Ala	Ala	Val	Gln	Cys	Gln	Ala	Gly	Arg	Gly
		195					200					205			
Ala	Ser	Leu	Leu	Cys	Val	Lys	Gln	Pro	Ser	Gly	Gly	Val	Gly	Trp	Ser
		210				215					220				
Gln	Thr	Gly	Pro	Leu	Cys	Pro	Gly	Thr	Gly	Cys	Gly	Pro	Asp	Asn	Gly
225					230					235					240
Gly	Cys	Glu	His	Glu	Cys	Val	Glu	Glu	Val	Asp	Gly	Ala	Val	Ser	Cys
				245					250					255	
Arg	Cys	Ser	Glu	Gly	Phe	Arg	Leu	Ala	Ala	Asp	Gly	His	Ser	Cys	Glu
			260					265					270		
Asp	Pro	Cys	Ala	Gln	Ala	Pro	Cys	Glu	Gln	Gln	Cys	Glu	Pro	Gly	Gly
		275					280					285			
Pro	Gln	Gly	Tyr	Ser	Cys	His	Cys	Arg	Leu	Gly	Phe	Arg	Pro	Ala	Glu
		290				295					300				
Asp	Asp	Pro	His	Arg	Cys	Val	Asp	Thr	Asp	Glu	Cys	Gln	Ile	Ala	Gly
305					310					315					320
Val	Cys	Gln	Gln	Met	Cys	Val	Asn	Tyr	Val	Gly	Gly	Phe	Glu	Cys	Tyr
				325					330					335	
Cys	Ser	Glu	Gly	His	Glu	Leu	Glu	Ala	Asp	Gly	Ile	Ser	Cys	Ser	Pro
			340					345					350		
Ala	Gly	Ala	Met	Gly	Ala	Gln	Ala	Ser	Gln	Asp	Leu	Arg	Asp	Glu	Leu
		355					360					365			
Leu	Asp	Asp	Gly	Glu	Glu	Gly	Glu	Asp	Glu	Glu	Glu	Pro	Trp	Glu	Asp
		370				375					380				
Phe	Asp	Gly	Thr	Trp	Thr	Glu	Glu	Gln	Gly	Ile	Leu	Trp	Leu	Ala	Pro
385					390					395					400
Thr	His	Pro	Pro	Asp	Phe	Gly	Leu	Pro	Tyr	Arg	Pro	Asn	Phe	Pro	Gln
				405					410					415	
Asp	Gly	Glu	Pro	Gln	Arg	Leu	His	Leu	Glu	Pro	Thr	Trp	Pro	Pro	Pro
			420					425					430		
Leu	Ser	Ala	Pro	Arg	Gly	Pro	Tyr	His	Ser	Ser	Val	Val	Ser	Ala	Thr
		435					440					445			
Arg	Pro	Met	Val	Ile	Ser	Ala	Thr	Arg	Pro	Thr	Leu	Pro	Ser	Ala	His
		450				455					460				
Lys	Thr	Ser	Val	Ile	Ser	Ala	Thr	Arg	Pro	Pro	Leu	Ser	Pro	Val	His
465					470					475					480
Pro	Pro	Ala	Met	Ala	Pro	Ala	Thr	Pro	Pro	Ala	Val	Phe	Ser	Glu	His
			485						490					495	
Gln	Ile	Pro	Lys	Ile	Lys	Ala	Asn	Tyr	Pro	Asp	Leu	Pro	Phe	Gly	His
			500					505					510		
Lys	Pro	Gly	Ile	Thr	Ser	Ala	Thr	His	Pro	Ala	Arg	Ser	Pro	Pro	Tyr
		515					520					525			
Gln	Pro	Pro	Ile	Ile	Ser	Thr	Asn	Tyr	Pro	Gln	Val	Phe	Pro	Pro	His

530		535		540
Gln Ala Pro Met Ser Pro Asp Thr His Thr Ile Thr Tyr Leu Pro Pro				
545		550		555
Val Pro Pro His Leu Asp Pro Gly Asp Thr Thr Ser Lys Ala His Gln				
	565		570	
His Pro Leu Leu Pro Asp Ala Pro Gly Ile Arg Thr Gln Ala Pro Gln				
	580		585	
Leu Ser Val Ser Ala Leu Gln Pro Pro Leu Pro Thr Asn Ser Arg Ser				
	595	600		605
Ser Val His Glu Thr Pro Val Pro Ala Ala Asn Gln Pro Pro Ala Phe				
	610	615		620
Pro Ser Ser Pro Leu Pro Pro Gln Arg Pro Thr Asn Gln Thr Ser Ser				
	625	630		635
Ile Ser Pro Thr His Ser Tyr Ser Arg Ala Pro Leu Val Pro Arg Glu				
	645		650	
Gly Val Pro Ser Pro Lys Ser Val Pro Gln Leu Pro Ser Val Pro Ser				
	660		665	
Thr Ala Ala Pro Thr Ala Leu Ala Glu Ser Gly Leu Ala Gly Gln Ser				
	675	680		685
Gln Arg Asp Asp Arg Trp Leu Leu Val Ala Leu Leu Val Pro Thr Cys				
	690	695		700
Val Phe Leu Val Val Leu Leu Ala Leu Gly Ile Val Tyr Cys Thr Arg				
	705	710		715
Cys Gly Ser His Ala Pro Asn Lys Arg Ile Thr Asp Cys Tyr Arg Trp				
	725		730	
Val Thr His Ala Gly Asn Lys Ser Ser Thr Glu Pro Met Pro Pro Arg				
	740		745	
Gly Ser Leu Thr Gly Val Gln Thr Cys Arg Thr Ser Val				
	755	760		765

<210> 191
 <211> 1329
 <212> PRT
 <213> Mus musculus

<400> 191

Met Pro Val Pro Pro Ala Arg Leu Leu Leu Leu Pro Leu Leu Pro Cys				
1	5	10	15	
Leu Leu Leu Leu Ala Pro Gly Thr Arg Gly Ala Pro Gly Cys Pro Val				
	20	25	30	
Pro Ile Arg Gly Cys Lys Cys Ser Gly Glu Arg Pro Lys Gly Leu Ser				
	35	40	45	
Gly Gly Ala His Asn Pro Ala Arg Arg Arg Val Val Cys Gly Gly Gly				
	50	55	60	
Asp Leu Pro Glu Pro Pro Asp Pro Gly Leu Leu Pro Asn Gly Thr Ile				
	65	70	75	80
Thr Leu Leu Leu Ser Asn Asn Lys Ile Thr Gly Leu Arg Asn Gly Ser				
	85	90	95	
Phe Leu Gly Leu Ser Leu Leu Glu Lys Leu Asp Leu Arg Ser Asn Val				
	100	105	110	
Ile Ser Thr Val Gln Pro Gly Ala Phe Leu Gly Leu Gly Glu Leu Lys				
	115	120	125	
Arg Leu Asp Leu Ser Asn Asn Arg Ile Gly Cys Leu Thr Ser Glu Thr				
	130	135	140	
Phe Gln Gly Leu Pro Arg Leu Leu Arg Leu Asn Ile Ser Gly Asn Ile				
	145	150	155	160
Tyr Ser Ser Leu Gln Pro Gly Val Phe Asp Glu Leu Pro Ala Leu Lys				
	165	170	175	
Ile Val Asp Phe Gly Thr Glu Phe Leu Thr Cys Asp Cys Arg Leu Arg				
	180	185	190	
Trp Leu Leu Pro Trp Ala Arg Asn His Ser Leu Gln Leu Ser Glu Arg				

Val	Ala	Val	Ser	Leu	Arg	His	Trp	Ala	Glu	Gly	Ala	Asp	Pro	Met	Ala
690						695					700				
Ala	Trp	Trp	Asn	Gln	Asp	Gly	Pro	Gly	Gly	Trp	Ser	Ser	Glu	Gly	Cys
705					710					715					720
Arg	Leu	Arg	Tyr	Ser	Gln	Pro	Asn	Val	Ser	Ser	Leu	Tyr	Cys	Gln	His
				725					730					735	
Leu	Gly	Asn	Val	Ala	Val	Leu	Met	Glu	Leu	Asn	Ala	Phe	Pro	Arg	Glu
			740					745					750		
Ala	Gly	Gly	Ser	Gly	Ala	Gly	Leu	His	Pro	Val	Val	Tyr	Pro	Cys	Thr
		755					760					765			
Ala	Leu	Leu	Leu	Leu	Cys	Leu	Phe	Ser	Thr	Ile	Ile	Thr	Tyr	Ile	Leu
770						775					780				
Asn	His	Ser	Ser	Ile	His	Val	Ser	Arg	Lys	Gly	Trp	His	Met	Leu	Leu
785					790					795					800
Asn	Leu	Cys	Phe	His	Met	Ala	Met	Thr	Ser	Ala	Val	Phe	Val	Gly	Gly
				805					810					815	
Val	Thr	Leu	Thr	Asn	Tyr	Gln	Met	Val	Cys	Gln	Ala	Val	Gly	Ile	Thr
			820					825					830		
Leu	His	Tyr	Ser	Ser	Leu	Ser	Ser	Leu	Leu	Trp	Met	Gly	Val	Lys	Ala
		835						840				845			
Arg	Val	Leu	His	Lys	Glu	Leu	Ser	Trp	Arg	Ala	Pro	Pro	Leu	Glu	Glu
		850				855					860				
Gly	Glu	Ala	Ala	Pro	Pro	Gly	Pro	Arg	Pro	Met	Leu	Arg	Phe	Tyr	Leu
865					870					875					880
Ile	Ala	Gly	Gly	Ile	Pro	Leu	Ile	Ile	Cys	Gly	Ile	Thr	Ala	Ala	Val
				885					890					895	
Asn	Ile	His	Asn	Tyr	Arg	Asp	His	Ser	Pro	Tyr	Cys	Trp	Leu	Val	Trp
			900					905					910		
Arg	Pro	Ser	Leu	Gly	Ala	Phe	Tyr	Ile	Pro	Val	Ala	Leu	Ile	Leu	Pro
		915					920					925			
Ile	Thr	Trp	Ile	Tyr	Phe	Leu	Cys	Ala	Gly	Leu	His	Leu	Arg	Ser	His
		930				935				940					
Val	Ala	Gln	Asn	Pro	Lys	Gln	Gly	Asn	Arg	Ile	Ser	Leu	Glu	Pro	Gly
945					950					955					960
Glu	Glu	Leu	Arg	Gly	Ser	Thr	Arg	Leu	Arg	Ser	Ser	Gly	Val	Leu	Leu
				965				970						975	
Asn	Asp	Ser	Gly	Ser	Leu	Leu	Ala	Thr	Val	Ser	Ala	Gly	Val	Gly	Thr
			980					985					990		
Pro	Ala	Pro	Pro	Glu	Asp	Gly	Asp	Gly	Val	Tyr	Ser	Pro	Gly	Val	Gln
		995					1000					1005			
Leu	Gly	Ala	Leu	Met	Thr	Thr	His	Phe	Leu	Tyr	Leu	Ala	Met	Trp	Ala
		1010				1015						1020			
Cys	Gly	Ala	Leu	Ala	Val	Ser	Gln	Arg	Trp	Leu	Pro	Arg	Val	Val	Cys
1025					1030					1035					1040
Ser	Cys	Leu	Tyr	Gly	Val	Ala	Ala	Ser	Ala	Leu	Gly	Leu	Phe	Val	Phe
				1045					1050					1055	
Thr	His	His	Cys	Ala	Arg	Arg	Arg	Asp	Val	Arg	Ala	Ser	Trp	Arg	Ala
			1060					1065					1070		
Cys	Cys	Pro	Pro	Ala	Ser	Pro	Ser	Ala	Ser	His	Val	Pro	Ala	Arg	Ala
		1075					1080					1085			
Leu	Pro	Thr	Ala	Thr	Glu	Asp	Gly	Ser	Pro	Val	Leu	Gly	Glu	Gly	Pro
		1090				1095						1100			
Ala	Ser	Leu	Lys	Ser	Ser	Pro	Ser	Gly	Ser	Ser	Gly	Arg	Ala	Pro	Pro
1105					1110					1115					1120
Pro	Pro	Cys	Lys	Leu	Thr	Asn	Leu	Gln	Val	Ala	Gln	Ser	Gln	Val	Cys
				1125					1130					1135	
Glu	Ala	Ser	Val	Ala	Ala	Arg	Gly	Asp	Gly	Glu	Pro	Glu	Pro	Thr	Gly
			1140				1145						1150		
Ser	Arg	Gly	Ser	Leu	Ala	Pro	Arg	His	His	Asn	Asn	Leu	His	His	Gly
		1155					1160					1165			
Arg	Arg	Val	His	Lys	Ser	Arg	Ala	Lys	Gly	His	Arg	Ala	Gly	Glu	Thr

1170	1175	1180
Gly Gly Lys Ser Arg Leu Lys Ala Leu Arg Ala Gly Thr Ser Pro Gly		
1185	1190	1195
Ala Pro Glu Leu Leu Ser Ser Glu Ser Gly Ser Leu His Asn Ser Pro		1200
	1205	1210
Ser Asp Ser Tyr Pro Gly Ser Ser Arg Asn Ser Pro Gly Asp Gly Leu		1215
	1220	1225
Pro Leu Glu Gly Glu Pro Met Leu Thr Pro Ser Glu Gly Ser Asp Thr		1230
	1235	1240
Ser Ala Ala Pro Ile Ala Glu Thr Gly Arg Pro Gly Gln Arg Arg Ser		1245
	1250	1255
Ala Ser Arg Asp Asn Leu Lys Gly Ser Gly Ser Ala Leu Glu Arg Glu		1260
1265	1270	1275
Ser Lys Arg Arg Ser Tyr Pro Leu Asn Thr Ser Leu Asn Gly Ala		1280
	1285	1290
Pro Lys Gly Gly Lys Tyr Glu Asp Ala Ser Val Thr Gly Ala Glu Ala		1295
	1300	1305
Ile Ala Gly Ser Met Lys Thr Gly Leu Trp Lys Ser Glu Thr Thr		1310
	1315	1320
Val		1325

<210> 192
 <211> 500
 <212> PRT
 <213> Mus musculus

<400> 192
Met Arg Ala Gln Leu Trp Leu Leu Gln Leu Leu Leu Arg Gly Ala
1 5 10 15
Ala Arg Ala Leu Ser Pro Ala Thr Pro Ala Gly His Asn Glu Gly Gln
20 25 30
Asp Ser Ala Trp Thr Ala Lys Arg Thr Arg Gln Gly Trp Ser Arg Arg
35 40 45
Pro Arg Glu Ser Pro Ala Gln Val Leu Lys Pro Gly Lys Thr Gln Leu
50 55 60
Ser Gln Asp Leu Gly Gly Gly Ser Leu Ala Ile Asp Thr Leu Pro Asp
65 70 75 80
Asn Arg Thr Arg Val Glu Asp Asn His Asn Tyr Tyr Val Ser Arg
85 90 95
Val Tyr Gly Pro Gly Glu Lys Gln Ser Gln Asp Leu Trp Val Asp Leu
100 105 110
Ala Val Ala Asn Arg Ser His Val Lys Ile His Arg Ile Leu Ser Ser
115 120 125
Ser His Arg Gln Ala Ser Arg Val Val Leu Ser Phe Asp Phe Pro Phe
130 135 140
Tyr Gly His Pro Leu Arg Gln Ile Thr Ile Ala Thr Gly Gly Phe Ile
145 150 155 160
Phe Met Gly Asp Met Leu His Arg Met Leu Thr Ala Thr Gln Tyr Val
165 170 175
Ala Pro Leu Met Ala Asn Phe Asn Pro Gly Tyr Ser Asp Asn Ser Thr
180 185 190
Val Ala Tyr Phe Asp Asn Gly Thr Val Phe Val Val Gln Trp Asp His
195 200 205
Val Tyr Leu Gln Asp Arg Glu Asp Arg Gly Ser Phe Thr Phe Gln Ala
210 215 220
Ala Leu His Arg Asp Gly Arg Ile Val Phe Gly Tyr Lys Glu Ile Pro
225 230 235 240
Met Ala Val Leu Asp Ile Ser Ser Ala Gln His Pro Val Lys Ala Gly
245 250 255
Leu Ser Asp Ala Phe Met Ile Leu Asn Ser Ser Pro Glu Val Pro Glu

		180						185					190
Leu	Thr	Ala	Thr	Gln	Tyr	Ile	Ala	Pro	Leu	Met	Ala	Asn	Phe
		195					200					205	
Ser	Val	Ser	Arg	Asn	Ser	Thr	Val	Arg	Tyr	Phe	Asp	Asn	Gly
		210					215				220		
Leu	Val	Val	Gln	Trp	Asp	His	Val	His	Leu	Gln	Asp	Asn	Tyr
		225					230			235			240
Gly	Ser	Phe	Thr	Phe	Gln	Ala	Thr	Leu	Leu	Met	Asp	Gly	Arg
				245					250				255
Phe	Gly	Tyr	Lys	Glu	Ile	Pro	Val	Leu	Val	Thr	Gln	Ile	Ser
			260					265					270
Asn	His	Pro	Val	Lys	Val	Gly	Leu	Ser	Asp	Ala	Phe	Val	Val
		275					280					285	
Arg	Ile	Gln	Gln	Ile	Pro	Asn	Val	Arg	Arg	Arg	Thr	Ile	Tyr
		290					295				300		
His	Arg	Val	Glu	Leu	Gln	Met	Ser	Lys	Ile	Thr	Asn	Ile	Ser
		305				310				315			320
Glu	Met	Thr	Pro	Leu	Pro	Thr	Cys	Leu	Gln	Phe	Asn	Gly	Cys
			325						330				335
Cys	Val	Ser	Ser	Gln	Ile	Gly	Phe	Asn	Cys	Ser	Trp	Cys	Ser
			340					345					350
Gln	Arg	Cys	Ser	Ser	Gly	Phe	Asp	Arg	His	Arg	Gln	Asp	Trp
		355					360					365	
Ser	Gly	Cys	Pro	Glu	Glu	Val	Gln	Ser	Lys	Glu	Lys	Met	Cys
		370					375				380		
Thr	Glu	Pro	Gly	Glu	Thr	Ser	Gln	Thr	Thr	Thr	Thr	Ser	His
		385				390				395			400
Thr	Met	Gln	Phe	Arg	Val	Leu	Thr	Thr	Thr	Arg	Arg	Ala	Val
				405					410				415
Gln	Met	Pro	Thr	Ser	Leu	Pro	Thr	Glu	Asp	Asp	Thr	Lys	Ile
			420					425					430
His	Leu	Lys	Asp	Ser	Gly	Ala	Ser	Thr	Asp	Asp	Ser	Ala	Ala
		435					440					445	
Lys	Gly	Gly	Thr	Leu	His	Ala	Gly	Leu	Ile	Val	Gly	Ile	Leu
		450					455				460		
Val	Leu	Ile	Ile	Ala	Ala	Ala	Ile	Leu	Val	Thr	Val	Tyr	Met
		465				470				475			480
His	Pro	Thr	Ser	Ala	Ala	Ser	Ile	Phe	Phe	Ile	Glu	Arg	Arg
			485						490				495
Arg	Trp	Pro	Ala	Met	Lys	Phe	Arg	Arg	Gly	Ser	Gly	His	Pro
			500					505					510
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Gln	Cys												
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<210> 194
 <211> 562
 <212> PRT
 <213> Mus musculus

<400> 194
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 Gly Gly Pro Ala Cys Tyr Gly Gly Phe Asp Leu Tyr Phe Ile Leu Asp
 35 40 45
 Lys Ser Gly Ser Val Leu His His Trp Asn Glu Ile Tyr Tyr Phe Val
 50 55 60
 Glu Gln Leu Ala His Arg Phe Ile Ser Pro Gln Leu Arg Met Ser Phe

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Ile	Val	Phe	Ser	Thr	Arg	Gly	Thr	Thr	Leu	Met	Lys	Leu	Thr	Glu Asp
				85					90					95
Arg	Glu	Gln	Ile	Arg	Gln	Gly	Leu	Glu	Glu	Leu	Gln	Lys	Val	Leu Pro
			100					105					110	
Gly	Gly	Asp	Thr	Tyr	Met	His	Glu	Gly	Phe	Glu	Arg	Ala	Ser	Glu Gln
		115					120					125		
Ile	Tyr	Tyr	Glu	Asn	Ser	Gln	Gly	Tyr	Arg	Thr	Ala	Ser	Val	Ile Ile
	130					135					140			
Ala	Leu	Thr	Asp	Gly	Glu	Leu	His	Glu	Asp	Leu	Phe	Phe	Tyr	Ser Glu
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Arg	Glu	Ala	Asn	Arg	Ser	Arg	Asp	Leu	Gly	Ala	Ile	Val	Tyr	Cys Val
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Gly	Val	Lys	Asp	Phe	Asn	Glu	Thr	Gln	Leu	Ala	Arg	Ile	Ala	Asp Ser
			180					185					190	
Lys	Asp	His	Val	Phe	Pro	Val	Asn	Asp	Gly	Phe	Gln	Ala	Leu	Gln Gly
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	210					215					220			
Glu	Pro	Ser	Thr	Ile	Cys	Ala	Gly	Glu	Ser	Phe	Gln	Val	Val	Val Arg
225					230					235				240
Gly	Asn	Gly	Phe	Arg	His	Ala	Arg	Asn	Val	Asp	Arg	Val	Leu	Cys Ser
			245						250					255
Phe	Lys	Ile	Asn	Asp	Ser	Val	Thr	Leu	Asn	Glu	Lys	Pro	Phe	Ala Val
			260					265					270	
Glu	Asp	Thr	Tyr	Leu	Leu	Cys	Pro	Ala	Pro	Ile	Leu	Lys	Glu	Val Gly
	275						280					285		
Met	Lys	Ala	Ala	Leu	Gln	Val	Ser	Met	Asn	Asp	Gly	Leu	Ser	Phe Ile
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Ser	Ser	Ser	Val	Ile	Ile	Thr	Thr	Thr	His	Cys	Ser	Asp	Gly	Ser Ile
305					310					315				320
Leu	Ala	Ile	Ala	Leu	Leu	Val	Leu	Phe	Leu	Leu	Leu	Ala	Leu	Ala Leu
				325					330					335
Leu	Trp	Trp	Phe	Trp	Pro	Leu	Cys	Cys	Thr	Val	Ile	Ile	Lys	Glu Val
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Pro	Lys	Lys	Lys	Trp	Pro	Thr	Val	Asp	Ala	Ser	Tyr	Tyr	Gly	Gly Arg
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385					390					395				400
Ser	Thr	Glu	Glu	Gly	Ala	Lys	Leu	Glu	Lys	Ala	Lys	Asn	Ala	Arg Val
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Lys	Met	Pro	Glu	Gln	Glu	Tyr	Glu	Phe	Pro	Glu	Pro	Arg	Asn	Leu Asn
			420					425					430	
Asn	Asn	Met	Arg	Arg	Pro	Ser	Ser	Pro	Arg	Lys	Trp	Tyr	Ser	Pro Ile
	435					440						445		
Lys	Gly	Lys	Leu	Asp	Ala	Leu	Trp	Val	Leu	Leu	Arg	Lys	Gly	Tyr Asp
	450					455					460			
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465					470					475				480
Asn	Phe	Thr	Arg	Val	Lys	Asn	Ser	Gln	Pro	Ala	Lys	Tyr	Pro	Leu Asn
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Asn	Thr	Tyr	His	Pro	Ser	Ser	Pro	Pro	Pro	Ala	Pro	Ile	Tyr	Thr Pro
			500				505						510	
Pro	Pro	Pro	Ala	Pro	His	Cys	Pro	Pro	Pro	Ala	Pro	Ser	Ala	Pro Thr
	515						520					525		
Pro	Pro	Ile	Pro	Ser	Pro	Pro	Ser	Thr	Leu	Pro	Pro	Pro	Gln	Ala
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Ser Val

<210> 195
<211> 2565
<212> DNA
<213> Homo sapiens

<400> 195

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cactgcgcgg	cttcacgtgg	accacagggg	accaggacac	ggctttcacc	aactgggccc	360
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<210> 196
<211> 757
<212> PRT
<213> Homo sapiens

<400> 196

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Ser	Cys	Tyr	Ala	Leu	Phe	Pro	Arg	Arg	Arg	Thr	Phe	Leu	Glu	Ala	Trp
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Arg	Ala	Cys	Arg	Glu	Leu	Gly	Gly	Asp	Leu	Ala	Thr	Pro	Arg	Thr	Pro
	50					55					60				
Glu	Glu	Ala	Gln	Arg	Val	Asp	Ser	Leu	Val	Gly	Ala	Gly	Pro	Ala	Ser
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Arg	Leu	Leu	Trp	Ile	Gly	Leu	Gln	Arg	Gln	Ala	Arg	Gln	Cys	Gln	Leu
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Gln	Arg	Pro	Leu	Arg	Gly	Phe	Thr	Trp	Thr	Thr	Gly	Asp	Gln	Asp	Thr
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Ala	Phe	Thr	Asn	Trp	Ala	Gln	Pro	Ala	Ser	Gly	Gly	Pro	Cys	Pro	Ala
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Gln	Arg	Cys	Val	Ala	Leu	Glu	Ala	Ser	Gly	Glu	His	Arg	Trp	Leu	Glu
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Gly	Ser	Cys	Thr	Leu	Ala	Val	Asp	Gly	Tyr	Leu	Cys	Gln	Phe	Gly	Phe
145				150						155					160
Glu	Gly	Ala	Cys	Pro	Ala	Leu	Gln	Asp	Glu	Ala	Gly	Gln	Ala	Gly	Pro
			165						170					175	
Ala	Val	Tyr	Thr	Thr	Pro	Phe	His	Leu	Val	Ser	Thr	Glu	Phe	Glu	Trp
		180						185					190		
Leu	Pro	Phe	Gly	Ser	Val	Ala	Ala	Val	Gln	Cys	Gln	Ala	Gly	Arg	Gly
	195						200					205			
Ala	Ser	Leu	Leu	Cys	Val	Lys	Gln	Pro	Glu	Gly	Gly	Val	Gly	Trp	Ser
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Arg	Ala	Gly	Pro	Leu	Cys	Leu	Gly	Thr	Gly	Cys	Ser	Pro	Asp	Asn	Gly
225				230						235					240
Gly	Cys	Glu	His	Glu	Cys	Val	Glu	Glu	Val	Asp	Gly	His	Val	Ser	Cys
			245						250					255	
Arg	Cys	Thr	Glu	Gly	Phe	Arg	Leu	Ala	Ala	Asp	Gly	Arg	Ser	Cys	Glu
		260						265					270		
Asp	Pro	Cys	Ala	Gln	Ala	Pro	Cys	Glu	Gln	Gln	Cys	Glu	Pro	Gly	Gly
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Pro	Gln	Gly	Tyr	Ser	Cys	His	Cys	Arg	Leu	Gly	Phe	Arg	Pro	Ala	Glu
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Asp	Asp	Pro	His	Arg	Cys	Val	Asp	Thr	Asp	Glu	Cys	Gln	Ile	Ala	Gly
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Val	Cys	Gln	Gln	Met	Cys	Val	Asn	Tyr	Val	Gly	Gly	Phe	Glu	Cys	Tyr
			325						330					335	
Cys	Ser	Glu	Gly	His	Glu	Leu	Glu	Ala	Asp	Gly	Ile	Ser	Cys	Ser	Pro
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Ala	Gly	Ala	Met	Gly	Ala	Gln	Ala	Ser	Gln	Asp	Leu	Gly	Asp	Glu	Leu
	355						360					365			
Leu	Asp	Asp	Gly	Glu	Asp	Glu	Glu	Asp	Glu	Asp	Glu	Ala	Trp	Lys	Ala
	370					375					380				
Phe	Asn	Gly	Gly	Trp	Thr	Glu	Met	Pro	Gly	Ile	Leu	Trp	Met	Glu	Pro
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Thr	Gln	Pro	Pro	Asp	Phe	Ala	Leu	Ala	Tyr	Arg	Pro	Ser	Phe	Pro	Glu
			405						410					415	
Asp	Arg	Glu	Pro	Gln	Ile	Pro	Tyr	Pro	Glu	Pro	Thr	Trp	Pro	Pro	Pro
		420					425						430		
Leu	Ser	Ala	Pro	Arg	Val	Pro	Tyr	His	Ser	Ser	Val	Leu	Ser	Val	Thr
	435						440					445			
Arg	Pro	Val	Val	Val	Ser	Ala	Thr	His	Pro	Thr	Leu	Pro	Ser	Ala	His
	450					455					460				
Gln	Pro	Pro	Val	Ile	Pro	Ala	Thr	His	Pro	Ala	Leu	Ser	Arg	Asp	His
465				470						475					480
Gln	Ile	Pro	Val	Ile	Ala	Ala	Asn	Tyr	Pro	Asp	Leu	Pro	Ser	Ala	Tyr
			485						490					495	
Gln	Pro	Gly	Ile	Leu	Ser	Val	Ser	His	Ser	Ala	Gln	Pro	Pro	Ala	His

500 505 510
 Gln Pro Pro Met Ile Ser Thr Lys Tyr Pro Glu Leu Phe Pro Ala His
 515 520 525
 Gln Ser Pro Met Phe Pro Asp Thr Arg Val Ala Gly Thr Gln Thr Thr
 530 535 540
 Thr His Leu Pro Gly Ile Pro Pro Asn His Ala Pro Leu Val Thr Thr
 545 550 555 560
 Leu Gly Ala Gln Leu Pro Pro Gln Ala Pro Asp Ala Leu Val Leu Arg
 565 570 575
 Thr Gln Ala Thr Gln Leu Pro Ile Ile Pro Thr Ala Gln Pro Ser Leu
 580 585 590
 Thr Thr Thr Ser Arg Ser Pro Val Ser Pro Ala His Gln Ile Ser Val
 595 600 605
 Pro Ala Ala Thr Gln Pro Ala Ala Leu Pro Thr Leu Leu Pro Ser Gln
 610 615 620
 Ser Pro Thr Asn Gln Thr Ser Pro Ile Ser Pro Thr His Pro His Ser
 625 630 635 640
 Lys Ala Pro Gln Ile Pro Arg Glu Asp Gly Pro Ser Pro Lys Leu Ala
 645 650 655
 Leu Trp Leu Pro Ser Pro Ala Pro Thr Ala Ala Pro Thr Ala Leu Gly
 660 665 670
 Glu Ala Gly Leu Ala Glu His Ser Gln Arg Asp Asp Arg Trp Leu Leu
 675 680 685
 Val Ala Leu Leu Val Pro Thr Cys Val Phe Leu Val Leu Leu Ala
 690 695 700
 Leu Gly Ile Val Tyr Cys Thr Arg Cys Gly Pro His Ala Pro Asn Lys
 705 710 715 720
 Arg Ile Thr Asp Cys Tyr Arg Trp Val Ile His Ala Gly Ser Lys Ser
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 Pro Thr Glu Pro Met Pro Pro Arg Gly Ser Leu Thr Gly Val Gln Thr
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<210> 197
 <211> 2973
 <212> DNA
 <213> Homo sapiens

<400> 197
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<210> 198
 <211> 266
 <212> PRT
 <213> Homo sapiens

<400> 198

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			20					25					30		
Ser	Ser	Ile	Val	Ser	Arg	Phe	Leu	Asn	Gly	Arg	Phe	Glu	Asp	Gln	Tyr
			35				40					45			
Thr	Pro	Thr	Ile	Glu	Asp	Phe	His	Arg	Lys	Val	Tyr	Asn	Ile	Arg	Gly
			50				55				60				
Asp	Met	Tyr	Gln	Leu	Asp	Ile	Leu	Asp	Thr	Ser	Gly	Asn	His	Pro	Phe
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Pro	Ala	Met	Arg	Arg	Leu	Ser	Ile	Leu	Thr	Gly	Asp	Val	Phe	Ile	Leu
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Val	Phe	Ser	Leu	Asp	Asn	Arg	Glu	Ser	Phe	Asp	Glu	Val	Lys	Arg	Leu
			100					105					110		
Gln	Lys	Gln	Ile	Leu	Glu	Val	Lys	Ser	Cys	Leu	Lys	Asn	Lys	Thr	Lys
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Glu	Ala	Ala	Glu	Leu	Pro	Met	Val	Ile	Cys	Gly	Asn	Lys	Asn	Asp	His
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Pro	His	Glu	Met	Ser	Pro	Ala	Leu	His	Arg	Lys	Ile	Ser	Val	Gln	Tyr

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 Met Asp Ala Tyr Gly Met Val Ser Pro Phe Ala Arg Arg Pro Ser Val
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<210> 199
 <211> 2159
 <212> DNA
 <213> Homo sapiens

<400> 199

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<210> 200
 <211> 529
 <212> PRT
 <213> Homo sapiens

<400> 200

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 His Thr Glu Glu Glu Val Glu Val Asp Ser His Ala Tyr Ser His Arg
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 Trp Lys Arg Asn Leu Asp Phe Leu Lys Ala Val Asp Thr Asn Arg Ala
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 Ser Val Gly Gln Asp Ser Pro Glu Pro Arg Ser Phe Thr Asp Leu Leu
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 Leu Asp Asp Gly Gln Asp Asn Asn Thr Gln Ile Glu Glu Asp Thr Asp
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 His Asn Tyr Tyr Ile Ser Arg Ile Tyr Gly Pro Ser Asp Ser Ala Ser
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 Arg Asp Leu Trp Val Asn Ile Asp Gln Met Glu Lys Asp Lys Val Lys
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 Ile His Gly Ile Leu Ser Asn Thr His Arg Gln Ala Ala Arg Val Asn
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 Leu Ser Phe Asp Phe Pro Phe Tyr Gly His Phe Leu Arg Glu Ile Thr
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 180 185 190
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 Ser Val Ser Arg Asn Ser Thr Val Arg Tyr Phe Asp Asn Gly Thr Ala
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 Leu Val Val Gln Trp Asp His Val His Leu Gln Asp Asn Tyr Asn Leu
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 Gly Ser Phe Thr Phe Gln Ala Thr Leu Leu Met Asp Gly Arg Ile Ile
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 Phe Gly Tyr Lys Glu Ile Pro Val Leu Val Thr Gln Ile Ser Ser Thr
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 Glu Met Thr Pro Leu Pro Thr Cys Leu Gln Phe Asn Arg Cys Gly Pro
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 Pro Val Glu Thr Ser Ser Arg Thr Thr Thr Thr Ile Gly Ala Thr Thr
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 Thr Gln Phe Arg Val Leu Thr Thr Thr Arg Arg Ala Val Thr Ser Gln
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 Pro Thr Ser Ala Ala Ser Ile Phe Phe Ile Glu Arg Arg Pro Ser Arg
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<210> 201
 <211> 2608
 <212> DNA
 <213> Homo sapiens

<400> 201

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 <211> 350
 <212> PRT
 <213> Homo sapiens

<400> 202

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Lys	Pro	Gly	Pro	Ala	Leu	Ser	Tyr	Pro	Gln	Glu	Glu	Ala	Thr	Leu	Asn
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Cys	His	Asp	Pro	Ala	Ser	Arg	Leu	Leu	Asp	Leu	Ile	Thr	Trp	Glu	Leu
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Glu	Pro	Asp	Gly	Ala	Leu	Asp	Arg	Cys	Pro	Cys	Ala	Ser	Gly	Leu	Leu
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Cys	Gln	Pro	His	Ser	His	Ser	Leu	Val	Tyr	Val	Cys	Lys	Pro	Thr	Phe
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Val	Gly	Ser	Arg	Asp	Gln	Asp	Gly	Glu	Ile	Leu	Leu	Pro	Arg	Glu	Val
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Leu	Glu	Asp	Leu	Glu	Arg	Ser	Leu	Thr	Glu	Glu	Met	Ala	Leu	Gly	Glu
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 <212> DNA
 <213> Homo sapiens

<400> 203

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 <213> Homo sapiens

<400> 204

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Thr	Asp	Thr	Pro	Gly	Leu	Arg	Arg	Arg	Ala	Ser	Cys	Arg	Pro	Thr	Thr
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Pro	Leu	Ala	Ala	Pro	Ala	Gln	Pro	Arg	Pro	Leu	Arg	Ser	Leu	Ser	Pro
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Arg	Ser	Pro	Ser	Phe	Gly	Ala	Gly	Glu	Gly	Leu	Leu	Arg	Ser	Gln	Ala
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Arg	Thr	Arg	Ala	Lys	Gly	Pro	Gly	Gly	Thr	Ser	Arg	Ala	Leu	Arg	Asp
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 Asp Leu Ser Glu Leu Arg Val Arg Lys Pro Gly Gly Ser Ser Gly Asp
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 Arg Gly Ser Asn Pro Leu Asp Gly Arg Asp Ser Pro Ser Ala Gly Gly
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 Pro Val Gly Gln Leu Glu Pro Ile Pro Ile Pro Ala Pro Ala Ser Pro
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 Gly Thr Arg Pro Thr Leu Lys Asp Leu Thr Ala Thr Leu Arg Arg Ala
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 Lys Ser Phe Thr Cys Ser Glu Lys Pro Met Ala Arg Arg Leu Pro Arg
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 Thr Ser Ala Leu Lys Ser Ser Ser Ser Glu Leu Leu Leu Thr Gly Pro
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 Gly Ala Glu Glu Asp Pro Leu Pro Leu Ile Val Gln Asp Gln Tyr Val
 580 585 590
 Gln Glu Ala Arg Gln Val Phe Glu Lys Ile Gln Arg Met Gly Ala Gln
 595 600 605
 Gln Asp Asp Gly Ser Asp Ala Pro Pro Gly Ser Pro Asp Trp Ala Gly
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 Asp Val Thr Arg Gly Gln Arg Ser Gln Glu Glu Leu Ser Gly Pro Glu
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 Ser Ser Leu Thr Asp Glu Gly Ile Gly Ala Asp Pro Glu Pro Pro Val
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 Ser Ser Ser Ala Gln Thr Asn His His Gly Pro Gly Thr Glu Asp Ser
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 690 695 700
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 Arg Ile Ala Gly Lys Ala Pro Lys Lys Lys Ser Leu Ser Asp Pro Ser
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Cys Asp Pro Ser Leu Val Asp Glu Ile Phe Asp Gln Ile Pro Glu Leu		
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Phe Leu Lys Phe Leu Glu Gln Ser Met Arg Glu Asn Lys Glu Lys Gln		
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Arg Ser Ser Met Ser Leu Tyr Thr Ala Ala Ser Val Ile Asp Thr Ala		
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Leu Ser Glu Ser Leu Gly Phe Pro His Gln Ser Leu Asp Asp Ala Leu		
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Arg Asp Leu Ser Ala Ala Met His Arg Asp Leu Ser Glu Lys Gln Ala		
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 Leu Ala Ser Ser Lys Ser Cys Leu Asp Pro Glu Phe Leu Lys Ala Ile
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<400> 206

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<400> 207

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<400> 208

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 <213> Homo sapiens

<400> 211

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<400> 212

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<210> 213
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<210> 214
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 <212> PRT
 <213> Homo sapiens

<400> 214

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Pro	Pro	Gly	Arg	Asp	Gly	Glu	Asp	Gly	Pro	Thr	Gly	Pro	Pro	Gly	Pro
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Tyr	Asp	Gly	Lys	Gly	Val	Gly	Leu	Gly	Pro	Gly	Pro	Met	Gly	Leu	Met
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Phe	Gln	Gly	Pro	Ala	Gly	Glu	Pro	Gly	Glu	Pro	Gly	Gln	Thr	Gly	Pro
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Ala	Gly	Ala	Arg	Gly	Pro	Ala	Gly	Pro	Pro	Gly	Lys	Ala	Gly	Glu	Asp
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Pro	Gln	Gly	Ala	Arg	Gly	Phe	Pro	Gly	Thr	Pro	Gly	Leu	Pro	Gly	Phe
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Thr	Pro	Gly	Gln	Thr	Gly	Ala	Arg	Gly	Leu	Pro	Gly	Glu	Arg	Gly	Arg
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 Ala Gly Leu Ala Gly Ala Arg Gly Ala Pro Gly Pro Asp Gly Asn Asn
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<211> 1247

<212> PRT

<213> Homo sapiens

<400> 216

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<400> 217

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 <211> 3173
 <212> PRT
 <213> Homo sapiens

<400> 218

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Lys	Asn	Gly	Ala	Ala	Ala	Asp	Ile	Ile	Phe	Leu	Val	Asp	Ser	Ser	Trp
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Thr	Ile	Gly	Glu	Glu	His	Phe	Gln	Leu	Val	Arg	Glu	Phe	Leu	Tyr	Asp
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Val	Val	Lys	Ser	Leu	Ala	Val	Gly	Glu	Asn	Asp	Phe	His	Phe	Ala	Leu
65					70					75					80
Val	Gln	Phe	Asn	Gly	Asn	Pro	His	Thr	Glu	Phe	Leu	Leu	Asn	Thr	Tyr
			85						90					95	
Arg	Thr	Lys	Gln	Glu	Val	Leu	Ser	His	Ile	Ser	Asn	Met	Ser	Tyr	Ile
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Gly	Gly	Thr	Asn	Gln	Thr	Gly	Lys	Gly	Leu	Glu	Tyr	Ile	Met	Gln	Ser
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His	Leu	Thr	Lys	Ala	Ala	Gly	Ser	Arg	Ala	Gly	Asp	Gly	Val	Pro	Gln
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Val	Ile	Val	Val	Leu	Thr	Asp	Gly	His	Ser	Lys	Asp	Gly	Leu	Ala	Leu
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Pro	Ser	Ala	Glu	Leu	Lys	Ser	Ala	Asp	Val	Asn	Val	Phe	Ala	Ile	Gly
			165					170						175	
Val	Glu	Asp	Ala	Asp	Glu	Gly	Ala	Leu	Lys	Glu	Ile	Ala	Ser	Glu	Pro
			180					185						190	
Leu	Asn	Met	His	Met	Phe	Asn	Leu	Glu	Asn	Phe	Thr	Ser	Leu	His	Asp
		195					200					205			
Ile	Val	Gly	Asn	Leu	Val	Ser	Cys	Val	His	Ser	Ser	Val	Ser	Pro	Glu
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Arg	Ala	Gly	Asp	Thr	Glu	Thr	Leu	Lys	Asp	Ile	Thr	Ala	Gln	Asp	Ser
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Ala	Asp	Ile	Ile	Phe	Leu	Ile	Asp	Gly	Ser	Asn	Asn	Thr	Gly	Ser	Val
			245					250						255	
Asn	Phe	Ala	Val	Ile	Leu	Asp	Phe	Leu	Val	Asn	Leu	Leu	Glu	Lys	Leu
			260				265						270		
Pro	Ile	Gly	Thr	Gln	Gln	Ile	Arg	Val	Gly	Val	Val	Gln	Phe	Ser	Asp
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Glu	Pro	Arg	Thr	Met	Phe	Ser	Leu	Asp	Thr	Tyr	Ser	Thr	Lys	Ala	Gln
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Val	Leu	Gly	Ala	Val	Lys	Ala	Leu	Gly	Phe	Ala	Gly	Gly	Glu	Leu	Ala
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Asn	Ile	Gly	Leu	Ala	Leu	Asp	Phe	Val	Val	Glu	Asn	His	Phe	Thr	Arg
			325					330						335	
Ala	Gly	Gly	Ser	Arg	Val	Glu	Glu	Gly	Val	Pro	Gln	Val	Leu	Val	Leu
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Ile	Ser	Ala	Gly	Pro	Ser	Ser	Asp	Glu	Ile	Arg	Tyr	Gly	Val	Val	Ala
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Leu	Lys	Gln	Ala	Ser	Val	Phe	Ser	Phe	Gly	Leu	Gly	Ala	Gln	Ala	Ala
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Ser	Arg	Ala	Glu	Leu	Gln	His	Ile	Ala	Thr	Asp	Asp	Asn	Leu	Val	Phe
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Thr	Val	Pro	Glu	Phe	Arg	Ser	Phe	Gly	Asp	Leu	Gln	Glu	Lys	Leu	Leu
			405					410						415	
Pro	Tyr	Ile	Val	Gly	Val	Ala	Gln	Arg	His	Ile	Val	Leu	Lys	Pro	Pro
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Thr Ile Val Thr Gln Val Ile Glu Val Asn Lys Arg Asp Ile Val Phe
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 Leu Val Asp Gly Ser Ser Ala Leu Gly Leu Ala Asn Phe Asn Ala Ile
 450 455 460
 Arg Asp Phe Ile Ala Lys Val Ile Gln Arg Leu Glu Ile Gly Gln Asp
 465 470 475 480
 Leu Ile Gln Val Ala Val Ala Gln Tyr Ala Asp Thr Val Arg Pro Glu
 485 490 495
 Phe Tyr Phe Asn Thr His Pro Thr Lys Arg Glu Val Ile Thr Ala Val
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 Arg Lys Met Lys Pro Leu Asp Gly Ser Ala Leu Tyr Thr Gly Ser Ala
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 Leu Asp Phe Val Arg Asn Asn Leu Phe Thr Ser Ser Ala Gly Tyr Arg
 530 535 540
 Ala Ala Glu Gly Ile Pro Lys Leu Leu Val Leu Ile Thr Gly Gly Lys
 545 550 555 560
 Ser Leu Asp Glu Ile Ser Gln Pro Ala Gln Glu Leu Lys Arg Ser Ser
 565 570 575
 Ile Met Ala Phe Ala Ile Gly Asn Lys Gly Ala Asp Gln Ala Glu Leu
 580 585 590
 Glu Glu Ile Ala Phe Asp Ser Ser Leu Val Phe Ile Pro Ala Glu Phe
 595 600 605
 Arg Ala Ala Pro Leu Gln Gly Met Leu Pro Gly Leu Leu Ala Pro Leu
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 Arg Thr Leu Ser Gly Thr Pro Glu Val His Ser Asn Lys Arg Asp Ile
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 Ile Phe Leu Leu Asp Gly Ser Ala Asn Val Gly Lys Thr Asn Phe Pro
 645 650 655
 Tyr Val Arg Asp Phe Val Met Asn Leu Val Asn Ser Leu Asp Ile Gly
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 Asn Asp Asn Ile Arg Val Gly Leu Val Gln Phe Ser Asp Thr Pro Val
 675 680 685
 Thr Glu Phe Ser Leu Asn Thr Tyr Gln Thr Lys Ser Asp Ile Leu Gly
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 His Leu Arg Gln Leu Gln Leu Gln Gly Gly Ser Gly Leu Asn Thr Gly
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 Ser Ala Leu Ser Tyr Val Tyr Ala Asn His Phe Thr Glu Ala Gly Gly
 725 730 735
 Ser Arg Ile Arg Glu His Val Pro Gln Leu Leu Leu Leu Leu Thr Ala
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 Gly Gln Ser Glu Asp Ser Tyr Leu Gln Ala Ala Asn Ala Leu Thr Arg
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 Ala Gly Ile Leu Thr Phe Cys Val Gly Ala Ser Gln Ala Asn Lys Ala
 770 775 780
 Glu Leu Glu Gln Ile Ala Phe Asn Pro Ser Leu Val Tyr Leu Met Asp
 785 790 795 800
 Asp Phe Ser Ser Leu Pro Ala Leu Pro Gln Gln Leu Ile Gln Pro Leu
 805 810 815
 Thr Thr Tyr Val Ser Gly Gly Val Glu Glu Val Pro Leu Ala Gln Pro
 820 825 830
 Glu Ser Lys Arg Asp Ile Leu Phe Leu Phe Asp Gly Ser Ala Asn Leu
 835 840 845
 Val Gly Gln Phe Pro Val Val Arg Asp Phe Leu Tyr Lys Ile Ile Asp
 850 855 860
 Glu Leu Asn Val Lys Pro Glu Gly Thr Arg Ile Ala Val Ala Gln Tyr
 865 870 875 880
 Ser Asp Asp Val Lys Val Glu Ser Arg Phe Asp Glu His Gln Ser Lys
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 Pro Glu Ile Leu Asn Leu Val Lys Arg Met Lys Ile Lys Thr Gly Lys
 900 905 910
 Ala Leu Asn Leu Gly Tyr Ala Leu Asp Tyr Ala Gln Arg Tyr Ile Phe

Val	Lys	Ser	Ala	Gly	Ser	Arg	Ile	Glu	Asp	Gly	Val	Leu	Gln	Phe	Leu
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Val	Leu	Leu	Val	Ala	Gly	Arg	Ser	Ser	Asp	Arg	Val	Asp	Gly	Pro	Ala
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Ser	Asn	Leu	Lys	Gln	Ser	Gly	Val	Val	Pro	Phe	Ile	Phe	Gln	Ala	Lys
			965						970					975	
Asn	Ala	Asp	Pro	Ala	Glu	Leu	Glu	Gln	Ile	Val	Leu	Ser	Pro	Ala	Phe
		980						985					990		
Ile	Leu	Ala	Ala	Glu	Ser	Leu	Pro	Lys	Ile	Gly	Asp	Leu	His	Pro	Gln
	995						1000						1005		
Ile	Val	Asn	Leu	Leu	Lys	Ser	Val	His	Asn	Gly	Ala	Pro	Ala	Pro	Val
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Ser	Gly	Glu	Lys	Asp	Val	Phe	Leu	Leu	Asp	Gly	Ser	Glu	Gly	Val	
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Arg	Ser	Gly	Phe	Pro	Leu	Leu	Lys	Glu	Phe	Val	Gln	Arg	Val	Val	Glu
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Ser	Leu	Asp	Val	Gly	Gln	Asp	Arg	Val	Arg	Val	Ala	Val	Val	Gln	Tyr
		1060						1065						1070	
Ser	Asp	Arg	Thr	Arg	Pro	Glu	Phe	Tyr	Leu	Asn	Ser	Tyr	Met	Asn	Lys
	1075					1080						1085			
Gln	Asp	Val	Val	Asn	Ala	Val	Arg	Gln	Leu	Thr	Leu	Leu	Gly	Gly	Pro
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Ile	Val	Leu	Thr	Ala	Asp	Arg	Ser	Gly	Asp	Asp	Val	Arg	Asn	Pro	Ser
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Ala	Val	Ala	Ile	Pro	Thr	Phe	Arg	Gln	Leu	Gly	Thr	Val	Gln	Gln	Val
1185					1190					1195					1200
Ile	Ser	Glu	Arg	Val	Thr	Gln	Leu	Thr	Arg	Glu	Glu	Leu	Ser	Arg	Leu
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Gln	Pro	Val	Leu	Gln	Pro	Leu	Pro	Ser	Pro	Gly	Val	Gly	Gly	Lys	Arg
		1220						1225					1230		
Asp	Val	Val	Phe	Leu	Ile	Asp	Gly	Ser	Gln	Ser	Ala	Gly	Pro	Glu	Phe
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Gln	Tyr	Val	Arg	Thr	Leu	Ile	Glu	Arg	Leu	Val	Asp	Tyr	Leu	Asp	Val
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Gly	Phe	Asp	Thr	Thr	Arg	Val	Ala	Val	Ile	Gln	Phe	Ser	Asp	Asp	Pro
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Lys	Ala	Glu	Phe	Leu	Leu	Asn	Ala	His	Ser	Ser	Lys	Asp	Glu	Val	Gln
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Gln	Phe	Gly	Val	Ala	Pro	Phe	Thr	Ile	Ala	Arg	Asn	Ala	Asp	Gln	Glu
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Thr	Phe	Arg	Glu	Leu	Pro	Ser	Leu	Glu	Gln	Lys	Leu	Leu	Thr	Pro	Ile
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 Tyr Pro Pro Pro Ala Val Glu Ser Asp Ala Ala Asp Ile Val Phe Leu
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 Ile Asp Ser Ser Glu Gly Val Arg Pro Asp Gly Phe Ala His Ile Arg
 1445 1450 1455
 Asp Phe Val Ser Arg Ile Val Arg Arg Leu Asn Ile Gly Pro Ser Lys
 1460 1465 1470
 Val Arg Val Gly Val Val Gln Phe Ser Asn Asp Val Phe Pro Glu Phe
 1475 1480 1485
 Tyr Leu Lys Thr Tyr Arg Ser Gln Ala Pro Val Leu Asp Ala Ile Arg
 1490 1495 1500
 Arg Leu Arg Leu Arg Gly Gly Ser Pro Leu Asn Thr Gly Lys Ala Leu
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 Gln Asp Asp Val Ser Arg Phe Ala Gln Val Ile Arg Ser Ser Gly Ile
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 Thr Ile Thr Asn Asp Pro Arg Leu Val Phe Thr Val Arg Glu Phe Arg
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 Pro Glu Lys Lys Lys Ala Asp Ile Val Phe Leu Leu Asp Gly Ser Ile
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 Ser Thr Lys Arg Gln Ile Ile Asp Ala Ile Asn Lys Val Val Tyr Lys
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 Gly Gly Arg His Ala Asn Thr Lys Val Gly Leu Glu His Leu Arg Val
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 Asn His Phe Val Pro Glu Ala Gly Ser Arg Leu Asp Gln Arg Val Pro
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 Gln Ile Ala Phe Val Ile Thr Gly Gly Lys Ser Val Glu Asp Ala Gln
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 Asp Val Ser Leu Ala Leu Thr Gln Arg Gly Val Lys Val Phe Ala Val
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 Gly Val Arg Asn Ile Asp Ser Glu Glu Val Gly Lys Ile Ala Ser Asn
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 1795 1800 1805
 Ser Glu Gln Val Leu Glu Thr Leu His Asp Ala Met His Glu Thr Leu
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 Cys Pro Gly Val Thr Asp Ala Ala Lys Ala Cys Asn Leu Asp Val Ile
 1825 1830 1835 1840
 Leu Gly Phe Asp Gly Ser Arg Asp Gln Asn Val Phe Val Ala Gln Lys
 1845 1850 1855
 Gly Phe Glu Ser Lys Val Asp Ala Ile Leu Asn Arg Ile Ser Gln Met
 1860 1865 1870
 His Arg Val Ser Cys Ser Gly Gly Arg Ser Pro Thr Val Arg Val Ser
 1875 1880 1885
 Val Val Ala Asn Thr Pro Ser Gly Pro Val Glu Ala Phe Asp Phe Asp

1890	1895	1900
Glu Tyr Gln Pro Glu Met Leu Glu Lys Phe Arg Asn Met Arg Ser Gln		
1905	1910	1915
His Pro Tyr Val Leu Thr Glu Asp Thr Leu Lys Val Tyr Leu Asn Lys		1920
	1925	1930
Phe Arg Gln Ser Ser Pro Asp Ser Val Lys Val Val Ile His Phe Thr		1935
	1940	1945
Asp Gly Ala Asp Gly Asp Leu Ala Asp Leu His Arg Ala Ser Glu Asn		1950
	1955	1960
Leu Arg Gln Glu Gly Val Arg Ala Leu Ile Leu Val Gly Leu Glu Arg		1965
	1970	1975
Val Val Asn Leu Glu Arg Leu Met His Leu Glu Phe Gly Arg Gly Phe		1980
1985	1990	1995
Met Tyr Asp Arg Pro Leu Arg Leu Asn Leu Leu Asp Leu Asp Tyr Glu		2000
	2005	2010
Leu Ala Glu Gln Leu Asp Asn Ile Ala Glu Lys Ala Cys Cys Gly Val		2015
	2020	2025
Pro Cys Lys Cys Ser Gly Gln Arg Gly Asp Arg Gly Pro Ile Gly Ser		2030
	2035	2040
Ile Gly Pro Lys Gly Ile Pro Gly Glu Asp Gly Tyr Arg Gly Tyr Pro		2045
	2050	2055
Gly Asp Glu Gly Gly Pro Gly Glu Arg Gly Pro Pro Gly Val Asn Gly		2060
2065	2070	2075
Thr Gln Gly Phe Gln Gly Cys Pro Gly Gln Arg Gly Val Lys Gly Ser		2080
	2085	2090
Arg Gly Phe Pro Gly Glu Lys Gly Glu Val Gly Glu Ile Gly Leu Asp		2095
	2100	2105
Gly Leu Asp Gly Glu Asp Gly Asp Lys Gly Leu Pro Gly Ser Ser Gly		2110
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Glu Lys Gly Asn Pro Gly Arg Arg Gly Asp Lys Gly Pro Arg Gly Glu		2125
	2130	2135
Lys Gly Glu Arg Gly Asp Val Gly Ile Arg Gly Asp Pro Gly Asn Pro		2140
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Gly Gln Asp Ser Gln Glu Arg Gly Pro Lys Gly Glu Thr Gly Asp Leu		2160
	2165	2170
Gly Pro Met Gly Val Pro Gly Arg Asp Gly Val Pro Gly Gly Pro Gly		2175
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Glu Thr Gly Lys Asn Gly Gly Phe Gly Arg Arg Gly Pro Pro Gly Ala		2190
	2195	2200
Lys Gly Asn Lys Gly Gly Pro Gly Gln Pro Gly Phe Glu Gly Glu Gln		2205
	2210	2215
Gly Thr Arg Gly Ala Gln Gly Pro Ala Gly Pro Ala Gly Pro Pro Gly		2220
2225	2230	2235
Leu Ile Gly Glu Gln Gly Ile Ser Gly Pro Arg Gly Ser Gly Gly Ala		2240
	2245	2250
Arg Gly Ala Pro Gly Glu Arg Gly Arg Thr Gly Pro Leu Gly Arg Lys		2255
	2260	2265
Gly Glu Pro Gly Glu Pro Gly Pro Lys Gly Gly Ile Gly Asn Pro Gly		2270
	2275	2280
Pro Arg Gly Glu Thr Gly Asp Asp Gly Arg Asp Gly Val Gly Ser Glu		2285
	2290	2295
Gly Arg Arg Gly Lys Lys Gly Glu Arg Gly Phe Pro Gly Tyr Pro Gly		2300
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Pro Lys Gly Asn Pro Gly Glu Pro Gly Leu Asn Gly Thr Thr Gly Pro		2320
	2325	2330
Lys Gly Ile Arg Gly Arg Arg Gly Asn Ser Gly Pro Pro Gly Ile Val		2335
	2340	2345
Gly Gln Lys Gly Arg Pro Gly Tyr Pro Gly Pro Ala Gly Pro Arg Gly		2350
	2355	2360
Asn Arg Gly Asp Ser Ile Asp Gln Cys Ala Leu Ile Gln Ser Ile Lys		2365
	2370	2375
		2380

Asp	Lys	Cys	Pro	Cys	Cys	Tyr	Gly	Pro	Leu	Glu	Cys	Pro	Val	Phe	Pro	2385	2390	2395	2400
Thr	Glu	Leu	Ala	Phe	Ala	Leu	Asp	Thr	Ser	Glu	Gly	Val	Asn	Gln	Asp	2405	2410	2415	
Thr	Phe	Gly	Arg	Met	Arg	Asp	Val	Val	Leu	Ser	Ile	Val	Asn	Val	Leu	2420	2425	2430	
Thr	Ile	Ala	Glu	Ser	Asn	Cys	Pro	Thr	Gly	Ala	Arg	Val	Ala	Val	Val	2435	2440	2445	
Thr	Tyr	Asn	Asn	Glu	Val	Thr	Thr	Glu	Ile	Arg	Phe	Ala	Asp	Ser	Lys	2450	2455	2460	
Arg	Lys	Ser	Val	Leu	Leu	Asp	Lys	Ile	Lys	Asn	Leu	Gln	Val	Ala	Leu	2465	2470	2475	2480
Thr	Ser	Lys	Gln	Gln	Ser	Leu	Glu	Thr	Ala	Met	Ser	Phe	Val	Ala	Arg	2485	2490	2495	
Asn	Thr	Phe	Lys	Arg	Val	Arg	Asn	Gly	Phe	Leu	Met	Arg	Lys	Val	Ala	2500	2505	2510	
Val	Phe	Phe	Ser	Asn	Thr	Pro	Thr	Arg	Ala	Ser	Pro	Gln	Leu	Arg	Glu	2515	2520	2525	
Ala	Val	Leu	Lys	Leu	Ser	Asp	Ala	Gly	Ile	Thr	Pro	Leu	Phe	Leu	Thr	2530	2535	2540	
Arg	Gln	Glu	Asp	Arg	Gln	Leu	Ile	Asn	Ala	Leu	Gln	Ile	Asn	Asn	Thr	2545	2550	2555	2560
Ala	Val	Gly	His	Ala	Leu	Val	Leu	Pro	Ala	Gly	Arg	Asp	Leu	Thr	Asp	2565	2570	2575	
Phe	Leu	Glu	Asn	Val	Leu	Thr	Cys	His	Val	Cys	Leu	Asp	Ile	Cys	Asn	2580	2585	2590	
Ile	Asp	Pro	Ser	Cys	Gly	Phe	Gly	Ser	Trp	Arg	Pro	Ser	Phe	Arg	Asp	2595	2600	2605	
Arg	Arg	Ala	Ala	Gly	Ser	Asp	Val	Asp	Ile	Asp	Met	Ala	Phe	Ile	Leu	2610	2615	2620	
Asp	Ser	Ala	Glu	Thr	Thr	Thr	Leu	Phe	Gln	Phe	Asn	Glu	Met	Lys	Lys	2625	2630	2635	2640
Tyr	Ile	Ala	Tyr	Leu	Val	Arg	Gln	Leu	Asp	Met	Ser	Pro	Asp	Pro	Lys	2645	2650	2655	
Ala	Ser	Gln	His	Phe	Ala	Arg	Val	Ala	Val	Val	Gln	His	Ala	Pro	Ser	2660	2665	2670	
Glu	Ser	Val	Ser	Met	Pro	Pro	Val	Lys	Val	Glu	Phe	Ser	Leu	Thr	Asp	2675	2680	2685	
Tyr	Gly	Ser	Lys	Glu	Lys	Leu	Val	Asp	Phe	Leu	Ser	Arg	Gly	Met	Thr	2690	2695	2700	
Gln	Leu	Gln	Gly	Thr	Arg	Ala	Leu	Gly	Ser	Ala	Ile	Glu	Tyr	Thr	Ile	2705	2710	2715	2720
Glu	Asn	Val	Phe	Glu	Ser	Ala	Pro	Asn	Pro	Arg	Asp	Leu	Lys	Ile	Val	2725	2730	2735	
Val	Leu	Met	Leu	Thr	Gly	Glu	Val	Pro	Glu	Gln	Gln	Leu	Glu	Glu	Ala	2740	2745	2750	
Gln	Arg	Val	Ile	Leu	Gln	Ala	Lys	Cys	Lys	Gly	Tyr	Phe	Phe	Val	Val	2755	2760	2765	
Leu	Gly	Ile	Gly	Arg	Lys	Val	Asn	Ile	Lys	Glu	Val	Tyr	Thr	Phe	Ala	2770	2775	2780	
Ser	Glu	Pro	Asn	Asp	Val	Phe	Phe	Lys	Leu	Val	Asp	Lys	Ser	Thr	Glu	2785	2790	2795	2800
Leu	Asn	Glu	Glu	Pro	Leu	Met	Arg	Phe	Gly	Arg	Leu	Leu	Pro	Ser	Phe	2805	2810	2815	
Val	Ser	Ser	Glu	Asn	Ala	Phe	Tyr	Leu	Ser	Pro	Asp	Ile	Arg	Lys	Gln	2820	2825	2830	
Cys	Asp	Trp	Phe	Gln	Gly	Asp	Gln	Pro	Thr	Lys	Asn	Leu	Val	Lys	Phe	2835	2840	2845	
Gly	His	Lys	Gln	Val	Asn	Val	Pro	Asn	Asn	Val	Thr	Ser	Ser	Pro	Thr	2850	2855	2860	
Ser	Asn	Pro	Val	Thr	Thr	Thr	Lys	Pro	Val	Thr	Thr	Thr	Lys	Pro	Val				

2865	2870	2875	2880
Thr Thr Thr Thr Lys Pro Val Thr Thr Thr Thr Lys Pro Val Thr Ile			
	2885	2890	2895
Ile Asn Gln Pro Ser Val Lys Pro Ala Ala Ala Lys Pro Ala Pro Ala			
	2900	2905	2910
Lys Pro Val Ala Ala Lys Pro Val Ala Thr Lys Thr Ala Thr Val Arg			
	2915	2920	2925
Pro Pro Val Ala Val Lys Pro Ala Thr Ala Ala Lys Pro Val Ala Ala			
	2930	2935	2940
Lys Pro Ala Ala Val Arg Pro Pro Ala Ala Ala Lys Pro Val Ala			
	2945	2950	2955
Thr Lys Pro Glu Val Pro Arg Pro Gln Ala Ala Lys Pro Ala Ala Thr			
	2965	2970	2975
Lys Pro Ala Thr Thr Lys Pro Val Val Lys Met Leu Arg Glu Val Gln			
	2980	2985	2990
Val Phe Glu Ile Thr Glu Asn Ser Ala Lys Leu His Trp Glu Arg Pro			
	2995	3000	3005
Glu Pro Pro Gly Pro Tyr Phe Tyr Asp Leu Thr Val Thr Ser Ala His			
	3010	3015	3020
Asp Gln Ser Leu Val Leu Lys Gln Asn Leu Thr Val Thr Asp Arg Val			
	3025	3030	3035
Ile Gly Gly Leu Leu Ala Gly Gln Thr Tyr His Val Ala Val Val Cys			
	3045	3050	3055
Tyr Leu Arg Ser Gln Val Arg Ala Thr Tyr His Gly Ser Phe Ser Thr			
	3060	3065	3070
Lys Lys Ser Gln Pro Pro Pro Pro Gln Pro Ala Arg Ser Ala Ser Ser			
	3075	3080	3085
Ser Thr Ile Asn Leu Met Val Ser Thr Glu Pro Leu Ala Leu Thr Glu			
	3090	3095	3100
Thr Asp Ile Cys Lys Leu Pro Lys Asp Glu Gly Thr Cys Arg Asp Phe			
	3105	3110	3115
Ile Leu Lys Trp Tyr Tyr Asp Pro Asn Thr Lys Ser Cys Ala Arg Phe			
	3125	3130	3135
Trp Tyr Gly Gly Cys Gly Gly Asn Glu Asn Lys Phe Gly Ser Gln Lys			
	3140	3145	3150
Glu Cys Glu Lys Val Cys Ala Pro Val Leu Ala Lys Pro Gly Val Ile			
	3155	3160	3165
Ser Val Met Gly Thr			
3170			

<210> 219
 <211> 2806
 <212> DNA
 <213> Homo sapiens

<400> 219	
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catcctgaag tcagccgatc caccgcgctg atattctgac ggcttgaggt ggttttttga	240
aacacagttt gctgagccct cttcacact attgaactag aatccccaac tgagaacca	300
ggaaccagca tcaactccct aagatctcct gtccttgaaa cacattgata ggatccaagg	360
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<210> 220
 <211> 161
 <212> PRT
 <213> Homo sapiens

<400> 220

Met	Asn	Leu	Ala	Ile	Ser	Ile	Ala	Leu	Leu	Leu	Thr	Val	Leu	Gln	Val
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Ser	Arg	Gly	Gln	Lys	Val	Thr	Ser	Leu	Thr	Ala	Cys	Leu	Val	Asp	Gln
			20					25					30		
Ser	Leu	Arg	Leu	Asp	Cys	Arg	His	Glu	Asn	Thr	Ser	Ser	Ser	Pro	Ile
			35				40					45			
Gln	Tyr	Glu	Phe	Ser	Leu	Thr	Arg	Glu	Thr	Lys	Lys	His	Val	Leu	Phe
			50			55					60				
Gly	Thr	Val	Gly	Val	Pro	Glu	His	Thr	Tyr	Arg	Ser	Arg	Thr	Asn	Phe
65					70				75					80	
Thr	Ser	Lys	Tyr	His	Met	Lys	Val	Leu	Tyr	Leu	Ser	Ala	Phe	Thr	Ser
				85				90					95		
Lys	Asp	Glu	Gly	Thr	Tyr	Thr	Cys	Ala	Leu	His	His	Ser	Gly	His	Ser
			100					105					110		
Pro	Pro	Ile	Ser	Ser	Gln	Asn	Val	Thr	Val	Leu	Arg	Asp	Lys	Leu	Val
			115				120					125			
Lys	Cys	Glu	Gly	Ile	Ser	Leu	Leu	Ala	Gln	Asn	Thr	Ser	Trp	Leu	Leu
			130				135					140			
Leu	Leu	Leu	Leu	Ser	Leu	Ser	Leu	Leu	Gln	Ala	Thr	Asp	Phe	Met	Ser
145					150					155					160
Leu															

<210> 221
 <211> 736
 <212> DNA
 <213> Homo sapiens

<400> 221
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 gctccaagga ggagaatagg ataatcccag gtggcatcta tgatgcagac ctcaatgatg 180
 agtgggtaca gcgtgccctt cacttcgcca tcagcgagta caacaaggcc accgaagatg 240
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 tctacgaagt tccctgggag gacagaatgt ccctgggtgaa ttccaggtgt caagaagcct 480
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 gagagacaga gaaggctgca ggagtccttt gttgtcagc agggcgctct gccctccctc 660
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 aaacagtagc atcgcc 736

<210> 222
 <211> 594
 <212> DNA
 <213> Homo sapiens

<400> 222
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 ggccctggcc tggagcccca aggaggagga taggataatc ccgggtggca tctataacgc 180
 agacctcaat gatgagtggg tacagcgtgc ctttacttc gccatcagcg agtataacaa 240
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 cggtgggggg gtgaattact tcttcgacgt agaggtgggc cgaaccatat gtaccaagtc 360
 ccagcccaac ttggacacct gtgccttcca tgaacagcca gaactgcaga agaaacagtt 420
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 cccctgtagt gctccaccc ctgggggcca atgggactgt gcaggagaca gcgg 594

<210> 223
 <211> 141
 <212> PRT
 <213> Homo sapiens

<400> 223
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 Gly Ala Leu Ala Ser Ser Ser Lys Glu Glu Asn Arg Ile Ile Pro Gly
 20 25 30
 Gly Ile Tyr Asp Ala Asp Leu Asn Asp Glu Trp Val Gln Arg Ala Leu
 35 40 45
 His Phe Ala Ile Ser Glu Tyr Asn Lys Ala Thr Glu Asp Glu Tyr Tyr
 50 55 60
 Arg Arg Pro Leu Gln Val Leu Arg Ala Arg Glu Gln Thr Phe Gly Gly
 65 70 75 80
 Val Asn Tyr Phe Phe Asp Val Glu Val Gly Arg Thr Ile Cys Thr Lys
 85 90 95
 Ser Gln Pro Asn Leu Asp Thr Cys Ala Phe His Glu Gln Pro Glu Leu
 100 105 110
 Gln Lys Lys Gln Leu Cys Ser Phe Glu Ile Tyr Glu Val Pro Trp Glu
 115 120 125
 Asp Arg Met Ser Leu Val Asn Ser Arg Cys Gln Glu Ala

130

135

140

<210> 224

<211> 141

<212> PRT

<213> Homo sapiens

<400> 224

Met	Ala	Gln	His	Leu	Ser	Thr	Leu	Leu	Leu	Leu	Ala	Thr	Leu	Ala
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Val	Ala	Leu	Ala	Trp	Ser	Pro	Lys	Glu	Glu	Asp	Arg	Ile	Ile	Pro
			20					25				30		Gly
Gly	Ile	Tyr	Asn	Ala	Asp	Leu	Asn	Asp	Glu	Trp	Val	Gln	Arg	Ala
		35					40					45		Leu
His	Phe	Ala	Ile	Ser	Glu	Tyr	Asn	Lys	Ala	Thr	Lys	Asp	Asp	Tyr
	50					55				60				Tyr
Arg	Arg	Pro	Leu	Arg	Val	Leu	Arg	Ala	Arg	Gln	Gln	Thr	Val	Gly
	65				70				75					80
Val	Asn	Tyr	Phe	Phe	Asp	Val	Glu	Val	Gly	Arg	Thr	Ile	Cys	Thr
			85					90					95	Lys
Ser	Gln	Pro	Asn	Leu	Asp	Thr	Cys	Ala	Phe	His	Glu	Gln	Pro	Glu
			100					105					110	Leu
Gln	Lys	Lys	Gln	Leu	Cys	Ser	Phe	Glu	Ile	Tyr	Glu	Val	Pro	Trp
	115						120					125		Glu
Asn	Arg	Arg	Ser	Leu	Val	Lys	Ser	Arg	Cys	Gln	Glu	Ser		
	130					135					140			

<210> 225

<211> 5460

<212> DNA

<213> Homo sapiens

<400> 225

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 Pro Cys Gln Ile Cys Val Cys Asp Ser Gly Ser Val Leu Cys Asp Asp
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 Ile Ile Cys Asp Asp Gln Glu Leu Asp Cys Pro Asn Pro Glu Ile Pro
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 Phe Gly Glu Cys Cys Ala Val Cys Pro Gln Pro Pro Thr Ala Pro Thr
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 Arg Pro Pro Asn Gly Gln Gly Pro Gln Gly Pro Lys Gly Asp Pro Gly
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 Pro Pro Gly Ile Pro Gly Arg Asn Gly Asp Pro Gly Ile Pro Gly Gln
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 Pro Thr Gly Pro Gln Asn Tyr Ser Pro Gln Tyr Asp Ser Tyr Asp Val
 145 150 155 160
 Lys Ser Gly Val Ala Val Gly Gly Leu Ala Gly Tyr Pro Gly Pro Ala
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 Gly Pro Pro Gly Pro Pro Gly Pro Pro Gly Thr Ser Gly His Pro Gly
 180 185 190
 Ser Pro Gly Ser Pro Gly Tyr Gln Gly Pro Pro Gly Glu Pro Gly Gln
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 Ala Gly Pro Ser Gly Pro Pro Gly Pro Pro Gly Ala Ile Gly Pro Ser
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 Gly Pro Ala Gly Lys Asp Gly Glu Ser Gly Arg Pro Gly Arg Pro Gly
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 Glu Arg Gly Leu Pro Gly Pro Pro Gly Ile Lys Gly Pro Ala Gly Ile
 245 250 255
 Pro Gly Phe Pro Gly Met Lys Gly His Arg Gly Phe Asp Gly Arg Asn
 260 265 270
 Gly Glu Lys Gly Glu Thr Gly Ala Pro Gly Leu Lys Gly Glu Asn Gly
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 Pro Gly Glu Arg Gly Arg Pro Gly Leu Pro Gly Ala Ala Gly Ala Arg
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 Val Gly Pro Ala Gly Ser Pro Gly Ser Asn Gly Ala Pro Gly Gln Arg
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 Gly Glu Pro Gly Pro Gln Gly His Ala Gly Ala Gln Gly Pro Pro Gly
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 Pro Pro Gly Ile Asn Gly Ser Pro Gly Gly Lys Gly Glu Met Gly Pro

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Thr	Pro	Gly	Leu	Gln	Gly	Met	Pro	Gly	Glu	Arg	Gly	Gly	Leu	Gly
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<400> 227

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Ser	Glu	His	Leu	Tyr	Asn	Asp	His	Gly	Val	Ile	Val	Asp	Tyr	Asn	Thr
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Lys	Val	Arg	Lys	Lys	Ser	Ser	Ser	Asp	Pro	Gly	Ile	Pro	Gly	Gly	Pro
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Gln	Ala	Ile	Pro	Ala	Thr	Asn	Ser	Pro	Asp	His	Ser	Asp	His	Thr	Leu
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Asp	Pro	Gly	Ser	Ser	Leu	Lys	Glu	Met	Thr	Asp	Ala	Arg	Ser	Lys	Tyr
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Ser	Gly	Thr	Arg	His	Val	Val	Pro	Ala	Gln	Val	His	Val	Asn	Gly	Asp
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Ala	Ala	Leu	Lys	Asp	Arg	Glu	Thr	Asp	Ile	Leu	Asp	Asp	Glu	Met	Pro
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His	His	Asp	Leu	His	Ser	Val	Asp	Ser	Leu	Gly	Thr	Leu	Ser	Ser	Ser
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Glu	Gly	Pro	Gln	Ser	Ala	His	Leu	Gly	Pro	Phe	Thr	Cys	His	Lys	Ser
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Ser	Gln	Asn	Ser	Leu	Leu	Ser	Asp	Gly	Phe	Gly	Ser	Asn	Val	Gly	Glu
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Asp	Pro	Gln	Gly	Thr	Leu	Val	Pro	Asp	Leu	Gly	Leu	Gly	Met	Asp	Gly
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Pro	Tyr	Glu	Arg	Glu	Arg	Thr	Phe	Gly	Ser	Arg	Glu	Pro	Lys	Gln	Pro
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Gln	Pro	Leu	Leu	Arg	Lys	Pro	Ser	Val	Ser	Ala	Gln	Met	Gln	Ala	Tyr
			325					330					335		

Gly	Gln	Ser	Ser	Tyr	Ser	Thr	Gln	Thr	Trp	Val	Arg	Gln	Gln	Gln	Met
			340					345					350		
Val	Val	Ala	His	Gln	Tyr	Ser	Phe	Ala	Pro	Asp	Gly	Glu	Ala	Arg	Leu
		355					360					365			
Val	Ser	Arg	Cys	Pro	Ala	Asp	Asn	Pro	Gly	Leu	Val	Gln	Ala	Gln	Pro
	370					375					380				
Arg	Val	Pro	Leu	Thr	Pro	Thr	Arg	Gly	Thr	Ser	Ser	Arg	Val	Ala	Val
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Gln	Arg	Gly	Val	Gly	Ser	Gly	Pro	His	Pro	Pro	Asp	Thr	Gln	Gln	Pro
			405					410					415		
Ser	Pro	Ser	Lys	Ala	Phe	Lys	Pro	Arg	Phe	Pro	Gly	Asp	Gln	Val	Val
			420					425					430		
Asn	Gly	Ala	Gly	Pro	Glu	Leu	Ser	Thr	Gly	Pro	Ser	Pro	Gly	Ser	Pro
	435						440					445			
Thr	Leu	Asp	Ile	Asp	Gln	Ser	Ile	Glu	Gln	Leu	Asn	Arg	Leu	Ile	Leu
	450					455					460				
Glu	Leu	Asp	Pro	Thr	Phe	Glu	Pro	Ile	Pro	Thr	His	Met	Asn	Ala	Leu
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Gly	Ser	Gln	Ala	Asn	Gly	Ser	Val	Ser	Pro	Asp	Ser	Val	Gly	Gly	Gly
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Ala	Thr	Gly	Arg	Gln	Gly	Ser	Ser	Ala	Glu	Gln	Pro	Leu	Gly	Gly	Arg
	515						520					525			
Leu	Arg	Lys	Leu	Ser	Leu	Gly	Gln	Tyr	Asp	Asn	Asp	Ala	Gly	Gly	Gln
	530					535				540					
Leu	Pro	Phe	Ser	Lys	Cys	Ala	Trp	Gly	Lys	Ala	Gly	Val	Asp	Tyr	Ala
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Pro	Asn	Leu	Pro	Pro	Phe	Pro	Ser	Pro	Ala	Asp	Val	Lys	Glu	Thr	Met
			565					570					575		
Thr	Pro	Gly	Tyr	Pro	Gln	Asp	Leu	Asp	Ile	Ile	Asp	Gly	Arg	Ile	Leu
		580						585					590		
Ser	Ser	Lys	Glu	Ser	Met	Cys	Ser	Thr	Pro	Ala	Phe	Pro	Val	Ser	Pro
		595					600					605			
Glu	Thr	Pro	Tyr	Val	Lys	Thr	Ala	Leu	Arg	His	Pro	Pro	Phe	Ser	Pro
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Pro	Glu	Pro	Pro	Leu	Ser	Ser	Pro	Ala	Ser	Gln	His	Lys	Gly	Gly	Arg
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Glu	Pro	Arg	Ser	Cys	Pro	Glu	Thr	Leu	Thr	His	Ala	Val	Gly	Met	Ser
			645					650					655		
Glu	Ser	Pro	Ile	Gly	Pro	Lys	Ser	Thr	Met	Leu	Arg	Ala	Asp	Ala	Ser
		660						665					670		
Ser	Thr	Pro	Ser	Phe	Gln	Gln	Ala	Phe	Ala	Ser	Ser	Cys	Thr	Ile	Ser
		675					680					685			
Ser	Asn	Gly	Pro	Gly	Gln	Arg	Arg	Glu	Ser	Ser	Ser	Ser	Ala	Glu	Arg
	690					695					700				
Gln	Trp	Val	Glu	Ser	Ser	Pro	Lys	Pro	Met	Val	Ser	Leu	Leu	Gly	Ser
705					710					715					720
Gly	Arg	Pro	Thr	Gly	Ser	Pro	Leu	Ser	Ala	Glu	Phe	Ser	Gly	Thr	Arg
			725						730				735		
Lys	Asp	Ser	Pro	Val	Leu	Ser	Cys	Phe	Pro	Pro	Ser	Glu	Leu	Gln	Ala
			740					745					750		
Pro	Phe	His	Ser	His	Glu	Leu	Ser	Leu	Ala	Glu	Pro	Pro	Asp	Ser	Leu
		755					760					765			
Ala	Pro	Pro	Ser	Ser	Gln	Ala	Phe	Leu	Gly	Phe	Gly	Thr	Ala	Pro	Val
	770					775					780				
Gly	Ser	Gly	Leu	Pro	Pro	Glu	Glu	Asp	Leu	Gly	Ala	Leu	Leu	Ala	Asn
785					790					795					800
Ser	His	Gly	Ala	Ser	Pro	Thr	Pro	Ser	Ile	Pro	Leu	Thr	Ala	Thr	Gly
			805						810					815	
Ala	Ala	Asp	Asn	Gly	Phe	Leu	Ser	His	Asn	Phe	Leu	Thr	Val	Ala	Pro

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<210> 230
 <211> 500
 <212> PRT
 <213> Homo sapiens

<400> 230

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			20					25					30		
Ser	Gly	Trp	Ala	Ala	Lys	Gly	Thr	Val	Arg	Gly	Trp	Asn	Arg	Arg	Ala
			35				40					45			
Arg	Glu	Ser	Pro	Gly	His	Val	Ser	Glu	Pro	Asp	Arg	Thr	Gln	Leu	Ser
			50			55					60				
Gln	Asp	Leu	Gly	Gly	Gly	Thr	Leu	Ala	Met	Asp	Thr	Leu	Pro	Asp	Asn
65					70				75					80	
Arg	Thr	Arg	Val	Val	Glu	Asp	Asn	His	Ser	Tyr	Tyr	Val	Ser	Arg	Leu
			85					90					95		
Tyr	Gly	Pro	Ser	Glu	Pro	His	Ser	Arg	Glu	Leu	Trp	Val	Asp	Val	Ala
			100					105					110		
Glu	Ala	Asn	Arg	Ser	Gln	Val	Lys	Ile	His	Thr	Ile	Leu	Ser	Asn	Thr
			115				120					125			
His	Arg	Gln	Ala	Ser	Arg	Val	Leu	Ser	Phe	Asp	Phe	Pro	Phe	Tyr	
			130			135				140					
Gly	His	Pro	Leu	Arg	Gln	Ile	Thr	Ile	Ala	Thr	Gly	Gly	Phe	Ile	Phe
145					150				155					160	

Met Gly Asp Val Ile His Arg Met Leu Thr Ala Thr Gln Tyr Val Ala
165 170 175
Pro Leu Met Ala Asn Phe Asn Pro Gly Tyr Ser Asp Asn Ser Thr Val
180 185 190
Val Tyr Phe Asp Asn Gly Thr Val Phe Val Val Gln Trp Asp His Val
195 200 205
Tyr Leu Gln Gly Trp Glu Asp Lys Gly Ser Phe Thr Phe Gln Ala Ala
210 215 220
Leu His His Asp Gly Arg Ile Val Phe Ala Tyr Lys Glu Ile Pro Met
225 230 235 240
Ser Val Pro Glu Ile Ser Ser Ser Gln His Pro Val Lys Thr Gly Leu
245 250 255
Ser Asp Ala Phe Met Ile Leu Asn Pro Ser Pro Asp Val Pro Glu Ser
260 265 270
Arg Arg Arg Ser Ile Phe Glu Tyr His Arg Ile Glu Leu Asp Pro Ser
275 280 285
Lys Val Thr Ser Met Ser Ala Val Glu Phe Thr Pro Leu Pro Thr Cys
290 295 300
Leu Gln His Arg Ser Cys Asp Ala Cys Met Ser Ser Asp Leu Thr Phe
305 310 315 320
Asn Cys Ser Trp Cys His Val Leu Gln Arg Cys Ser Ser Gly Phe Asp
325 330 335
Arg Tyr Arg Gln Glu Trp Met Asp Tyr Gly Cys Ala Gln Glu Ala Glu
340 345 350
Gly Arg Met Cys Glu Asp Phe Gln Asp Glu Asp His Asp Ser Ala Ser
355 360 365
Pro Asp Thr Ser Phe Ser Pro Tyr Asp Gly Asp Leu Thr Thr Thr Ser
370 375 380
Ser Ser Leu Phe Ile Asp Ser Leu Thr Thr Glu Asp Asp Thr Lys Leu
385 390 395 400
Asn Pro Tyr Ala Gly Glu Asp Gly Leu Gln Asn Asn Leu Ser Pro Lys
405 410 415
Thr Lys Gly Thr Pro Val His Leu Gly Thr Ile Val Gly Ile Val Leu
420 425 430
Ala Val Leu Leu Val Ala Ala Ile Ile Leu Ala Gly Ile Tyr Ile Asn
435 440 445
Gly His Pro Thr Ser Asn Ala Ala Leu Phe Phe Ile Glu Arg Arg Pro
450 455 460
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465 470 475 480
Tyr Ala Glu Val Glu Pro Ser Gly His Glu Lys Glu Gly Phe Met Glu
485 490 495
Ala Glu Gln Cys
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<210> 231
<211> 5540
<212> DNA
<213> Homo sapiens

<400> 231
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tgccaggagg agacacttac atgcatgaag gatttgaaag ggccagtgag cagattttatt 540
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atggaagcat	ttcctatcca	gtgtgaataa	aaagaacagt	tgtagttaa	tattataaag	4680
ccgatgat	ttcatggcag	gttattctac	caagctgtgc	ttgttggttt	ttcccatgac	4740
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<210> 232
 <211> 564
 <212> PRT
 <213> Homo sapiens

<400> 232

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			20					25					30		
Glu	Asp	Gly	Gly	Pro	Ala	Cys	Tyr	Gly	Gly	Phe	Asp	Leu	Tyr	Phe	Ile
		35					40					45			
Leu	Asp	Lys	Ser	Gly	Ser	Val	Leu	His	His	Trp	Asn	Glu	Ile	Tyr	Tyr
	50					55					60				
Phe	Val	Glu	Gln	Leu	Ala	His	Lys	Phe	Ile	Ser	Pro	Gln	Leu	Arg	Met
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Ser	Phe	Ile	Val	Phe	Ser	Thr	Arg	Gly	Thr	Thr	Leu	Met	Lys	Leu	Thr
			85					90						95	
Glu	Asp	Arg	Glu	Gln	Ile	Arg	Gln	Gly	Leu	Glu	Glu	Leu	Gln	Lys	Val
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Leu	Pro	Gly	Gly	Asp	Thr	Tyr	Met	His	Glu	Gly	Phe	Glu	Arg	Ala	Ser
		115					120					125			
Glu	Gln	Ile	Tyr	Tyr	Glu	Asn	Arg	Gln	Gly	Tyr	Arg	Thr	Ala	Ser	Val
	130					135				140					
Ile	Ile	Ala	Leu	Thr	Asp	Gly	Glu	Leu	His	Glu	Asp	Leu	Phe	Phe	Tyr
	145				150					155				160	
Ser	Glu	Arg	Glu	Ala	Asn	Arg	Ser	Arg	Asp	Leu	Gly	Ala	Ile	Val	Tyr
			165					170						175	
Cys	Val	Gly	Val	Lys	Asp	Phe	Asn	Glu	Thr	Gln	Leu	Ala	Arg	Ile	Ala
			180					185					190		
Asp	Ser	Lys	Asp	His	Val	Phe	Pro	Val	Asn	Asp	Gly	Phe	Gln	Ala	Leu
		195					200				205				
Gln	Gly	Ile	Ile	His	Ser	Ile	Leu	Lys	Lys	Ser	Cys	Ile	Glu	Ile	Leu
	210					215					220				
Ala	Ala	Glu	Pro	Ser	Thr	Ile	Cys	Ala	Gly	Glu	Ser	Phe	Gln	Val	Val
	225				230					235				240	

Val Arg Gly Asn Gly Phe Arg His Ala Arg Asn Val Asp Arg Val Leu
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 Cys Ser Phe Lys Ile Asn Asp Ser Val Thr Leu Asn Glu Lys Pro Phe
 260 265 270
 Ser Val Glu Asp Thr Tyr Leu Leu Cys Pro Ala Pro Ile Leu Lys Glu
 275 280 285
 Val Gly Met Lys Ala Ala Leu Gln Val Ser Met Asn Asp Gly Leu Ser
 290 295 300
 Phe Ile Ser Ser Ser Val Ile Ile Thr Thr Thr His Cys Ser Asp Gly
 305 310 315 320
 Ser Ile Leu Ala Ile Ala Leu Leu Ile Leu Phe Leu Leu Leu Ala Leu
 325 330 335
 Ala Leu Leu Trp Trp Phe Trp Pro Leu Cys Cys Thr Val Ile Ile Lys
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 Glu Val Pro Pro Pro Ala Glu Glu Ser Glu Glu Glu Asp Asp Asp
 355 360 365
 Gly Leu Pro Lys Lys Lys Trp Pro Thr Val Asp Ala Ser Tyr Tyr Gly
 370 375 380
 Gly Arg Gly Val Gly Gly Ile Lys Arg Met Glu Val Arg Trp Gly Glu
 385 390 395 400
 Lys Gly Ser Thr Glu Glu Gly Ala Lys Leu Glu Lys Ala Lys Asn Ala
 405 410 415
 Arg Val Lys Met Pro Glu Gln Glu Tyr Glu Phe Pro Glu Pro Arg Asn
 420 425 430
 Leu Asn Asn Asn Met Arg Arg Pro Ser Ser Pro Arg Lys Trp Tyr Ser
 435 440 445
 Pro Ile Lys Gly Lys Leu Asp Ala Leu Trp Val Leu Leu Arg Lys Gly
 450 455 460
 Tyr Asp Arg Val Ser Val Met Arg Pro Gln Pro Gly Asp Thr Gly Arg
 465 470 475 480
 Cys Ile Asn Phe Thr Arg Val Lys Asn Asn Gln Pro Ala Lys Tyr Pro
 485 490 495
 Leu Asn Asn Ala Tyr His Thr Ser Ser Pro Pro Pro Ala Pro Ile Tyr
 500 505 510
 Thr Pro Pro Pro Pro Ala Pro His Cys Pro Pro Pro Pro Ser Ala
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<210> 233
 <211> 5086
 <212> DNA
 <213> Homo sapiens

<220>
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 <222> (1)...(5086)
 <223> n = A,T,C or G

<400> 233
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<210> 234
 <211> 1366
 <212> PRT
 <213> Homo sapiens

<400> 234

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			20					25					30		
Gly	Pro	Ala	Gly	Asp	Arg	Gly	Pro	Arg	Gly	Glu	Arg	Gly	Pro	Pro	Gly
		35					40					45			
Pro	Pro	Gly	Arg	Asp	Gly	Glu	Asp	Gly	Pro	Thr	Gly	Pro	Pro	Gly	Pro
		50				55					60				
Pro	Gly	Pro	Pro	Gly	Pro	Pro	Gly	Leu	Gly	Gly	Asn	Phe	Ala	Ala	Gln
65					70				75						80
Tyr	Asp	Gly	Lys	Gly	Val	Gly	Leu	Gly	Pro	Gly	Pro	Met	Gly	Leu	Met
			85					90					95		
Gly	Pro	Arg	Gly	Pro	Pro	Gly	Ala	Ala	Gly	Ala	Pro	Gly	Pro	Gln	Gly
			100					105					110		
Phe	Gln	Gly	Pro	Ala	Gly	Glu	Pro	Gly	Glu	Pro	Gly	Gln	Thr	Gly	Pro
		115					120					125			
Ala	Gly	Ala	Arg	Gly	Pro	Ala	Gly	Pro	Pro	Gly	Lys	Ala	Gly	Glu	Asp
		130				135					140				
Gly	His	Pro	Gly	Lys	Pro	Gly	Arg	Pro	Gly	Glu	Arg	Gly	Val	Val	Gly
145					150				155						160
Pro	Gln	Gly	Ala	Arg	Gly	Phe	Pro	Gly	Thr	Pro	Gly	Leu	Pro	Gly	Phe
			165					170						175	
Lys	Gly	Ile	Arg	Gly	His	Asn	Gly	Leu	Asp	Gly	Leu	Lys	Gly	Gln	Pro
		180					185						190		
Gly	Ala	Pro	Gly	Val	Lys	Gly	Glu	Pro	Gly	Ala	Pro	Gly	Glu	Asn	Gly
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Thr	Pro	Gly	Gln	Thr	Gly	Ala	Arg	Gly	Leu	Pro	Gly	Glu	Arg	Gly	Arg
		210				215					220				
Val	Gly	Ala	Pro	Gly	Pro	Ala	Gly	Ala	Arg	Gly	Ser	Asp	Gly	Ser	Val
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Gly	Pro	Val	Gly	Pro	Ala	Gly	Pro	Ile	Gly	Ser	Ala	Gly	Pro	Pro	Gly
			245					250						255	
Phe	Pro	Gly	Ala	Pro	Gly	Pro	Lys	Gly	Glu	Ile	Gly	Ala	Val	Gly	Asn
		260					265					270			
Ala	Gly	Pro	Ala	Gly	Pro	Ala	Gly	Pro	Arg	Gly	Glu	Val	Gly	Leu	Pro

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 770 775 780
 Met Thr Gly Phe Pro Gly Ala Ala Gly Arg Thr Gly Pro Pro Gly Pro
 785 790 795 800
 Ser Gly Ile Ser Gly Pro Pro Gly Pro Pro Gly Pro Ala Gly Lys Glu
 805 810 815
 Gly Leu Arg Gly Pro Arg Gly Asp Gln Gly Pro Val Gly Arg Thr Gly
 820 825 830
 Glu Val Gly Ala Val Gly Pro Pro Gly Phe Ala Gly Glu Lys Gly Pro
 835 840 845
 Ser Gly Glu Ala Gly Thr Ala Gly Pro Pro Gly Thr Pro Gly Pro Gln
 850 855 860
 Gly Leu Leu Gly Ala Pro Gly Ile Leu Gly Leu Pro Gly Ser Arg Gly
 865 870 875 880
 Glu Arg Gly Leu Pro Gly Val Ala Gly Ala Val Gly Glu Pro Gly Pro
 885 890 895
 Leu Gly Ile Ala Gly Pro Pro Gly Ala Arg Gly Pro Pro Gly Ala Val
 900 905 910
 Gly Ser Pro Gly Val Asn Gly Ala Pro Gly Glu Ala Gly Arg Asp Gly
 915 920 925
 Asn Pro Gly Asn Asp Gly Pro Pro Gly Arg Asp Gly Gln Pro Gly His
 930 935 940
 Lys Gly Glu Arg Gly Tyr Pro Gly Asn Ile Gly Pro Val Gly Ala Ala
 945 950 955 960
 Gly Ala Pro Gly Pro His Gly Pro Val Gly Pro Ala Gly Lys His Gly
 965 970 975
 Asn Arg Gly Glu Thr Gly Pro Ser Gly Pro Val Gly Pro Ala Gly Ala
 980 985 990
 Val Gly Pro Arg Gly Pro Ser Gly Pro Gln Gly Ile Arg Gly Asp Lys
 995 1000 1005
 Gly Glu Pro Gly Glu Lys Gly Pro Arg Gly Leu Pro Gly Leu Lys Gly
 1010 1015 1020
 His Asn Gly Leu Gln Gly Leu Pro Gly Ile Ala Gly His His Gly Asp
 1025 1030 1035 1040
 Gln Gly Ala Pro Gly Ser Val Gly Pro Ala Gly Pro Arg Gly Pro Ala
 1045 1050 1055
 Gly Pro Ser Gly Pro Ala Gly Lys Asp Gly Arg Thr Gly His Pro Gly
 1060 1065 1070
 Thr Val Gly Pro Ala Gly Ile Arg Gly Pro Gln Gly His Gln Gly Pro
 1075 1080 1085
 Ala Gly Pro Pro Gly Pro Pro Gly Pro Pro Gly Pro Pro Gly Val Ser
 1090 1095 1100
 Gly Gly Gly Tyr Asp Phe Gly Tyr Asp Gly Asp Phe Tyr Arg Ala Asp
 1105 1110 1115 1120
 Gln Pro Arg Ser Ala Pro Ser Leu Arg Pro Lys Asp Tyr Glu Val Asp
 1125 1130 1135
 Ala Thr Leu Lys Ser Leu Asn Asn Gln Ile Glu Thr Leu Leu Thr Pro
 1140 1145 1150
 Glu Gly Ser Arg Lys Asn Pro Ala Arg Thr Cys Arg Asp Leu Arg Leu
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 Ser His Pro Glu Trp Ser Ser Gly Tyr Tyr Trp Ile Asp Pro Asn Gln
 1170 1175 1180
 Gly Cys Thr Met Asp Ala Ile Lys Val Tyr Cys Asp Phe Ser Thr Gly
 1185 1190 1195 1200
 Glu Thr Cys Ile Arg Ala Gln Pro Glu Asn Ile Pro Ala Lys Asn Trp
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 Tyr Arg Ser Ser Lys Asp Lys Lys His Val Trp Leu Gly Glu Thr Ile
 1220 1225 1230
 Asn Ala Gly Ser Gln Phe Glu Tyr Asn Val Glu Gly Val Thr Ser Lys
 1235 1240 1245
 Glu Met Ala Thr Gln Leu Ala Phe Met Arg Leu Leu Ala Asn Tyr Ala

1250	1255	1260
Ser Gln Asn Ile Thr Tyr His Cys Lys Asn Ser Ile Ala Tyr Met Asp		
1265	1270	1275
Glu Glu Thr Gly Asn Leu Lys Lys Ala Val Ile Leu Gln Gly Ser Asn		
	1285	1290
Asp Val Glu Leu Val Ala Glu Gly Asn Ser Arg Phe Thr Tyr Thr Val		
	1300	1305
Leu Val Asp Gly Cys Ser Lys Lys Thr Asn Glu Trp Gly Lys Thr Ile		
	1315	1320
Ile Glu Tyr Lys Thr Asn Lys Pro Ser Arg Leu Pro Phe Leu Asp Ile		
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Ala Pro Leu Asp Ile Gly Gly Ala Asp His Glu Phe Phe Val Asp Ile		
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Gly Pro Val Cys Phe Lys		
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<210> 235
 <211> 4168
 <212> DNA
 <213> Homo sapiens

<400> 235						
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aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa				4168

<210> 236
 <211> 1028
 <212> PRT
 <213> Homo sapiens

<400> 236

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			20					25					30		
Glu	Leu	Glu	Glu	Arg	Phe	Ala	Leu	Val	Leu	Ser	Ser	Met	Asn	Leu	Pro
			35				40					45			
Pro	Asp	Lys	Ala	Arg	Leu	Leu	Arg	Gln	Tyr	Asp	Asn	Glu	Lys	Lys	Trp
			50			55					60				
Asp	Leu	Ile	Cys	Asp	Gln	Glu	Arg	Phe	Gln	Val	Lys	Asn	Pro	Pro	His
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Thr	Tyr	Ile	Gln	Lys	Leu	Gln	Ser	Phe	Leu	Asp	Pro	Ser	Val	Thr	Arg
			85					90						95	
Lys	Lys	Phe	Arg	Arg	Arg	Val	Gln	Glu	Ser	Thr	Lys	Val	Leu	Arg	Glu
			100				105					110			
Leu	Glu	Ile	Ser	Leu	Arg	Thr	Asn	His	Ile	Gly	Trp	Val	Arg	Glu	Phe
			115				120					125			
Leu	Asn	Asp	Glu	Asn	Lys	Gly	Leu	Asp	Val	Leu	Val	Asp	Tyr	Leu	Ser
			130			135					140				
Phe	Ala	Gln	Cys	Ser	Val	Met	Phe	Asp	Phe	Glu	Gly	Leu	Glu	Ser	Gly
145					150				155					160	
Asp	Asp	Gly	Ala	Phe	Asp	Lys	Leu	Arg	Ser	Trp	Ser	Arg	Ser	Ile	Glu
			165				170							175	
Asp	Leu	Gln	Pro	Pro	Ser	Ala	Leu	Ser	Ala	Pro	Phe	Thr	Asn	Ser	Leu

Leu Pro Val Asp Phe Val Glu Cys Leu Met Arg Phe Leu Pro Thr Glu
 675 680 685
 Ala Glu Val Lys Leu Leu Arg Gln Tyr Glu Arg Glu Arg Gln Pro Leu
 690 695 700
 Glu Glu Leu Ala Ala Glu Asp Arg Phe Met Leu Leu Phe Ser Lys Val
 705 710 715 720
 Glu Arg Leu Thr Gln Arg Met Ala Gly Met Ala Phe Leu Gly Asn Phe
 725 730 735
 Gln Asp Asn Leu Gln Met Leu Thr Pro Gln Leu Asn Ala Ile Ile Ala
 740 745 750
 Ala Ser Ala Ser Val Lys Ser Ser Gln Lys Leu Lys Gln Met Leu Glu
 755 760 765
 Ile Ile Leu Ala Leu Gly Asn Tyr Met Asn Ser Ser Lys Arg Gly Ala
 770 775 780
 Val Tyr Gly Phe Lys Leu Gln Ser Leu Asp Leu Leu Leu Asp Thr Lys
 785 790 795 800
 Ser Thr Asp Arg Lys Met Thr Leu Leu His Phe Ile Ala Leu Thr Val
 805 810 815
 Lys Glu Lys Tyr Pro Asp Leu Ala Asn Phe Trp His Glu Leu His Phe
 820 825 830
 Val Glu Lys Ala Ala Ala Val Ser Leu Glu Asn Val Leu Leu Asp Val
 835 840 845
 Lys Glu Leu Gly Arg Gly Met Glu Leu Ile Arg Arg Glu Cys Ser Ile
 850 855 860
 His Asp Asn Ser Val Leu Arg Asn Phe Leu Ser Thr Asn Glu Gly Lys
 865 870 875 880
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<400> 238

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His Met Glu Leu Leu Leu Gly His Lys Glu Ala Arg Gln Arg Cys Gln
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<400> 240

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Met	Asp	Thr	Trp	Leu	Asn	Ala	Asp	Pro	His	Asn	Val	Val	Val	Leu	His
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Ser	Gln	Arg	Arg	Tyr	Val	His	Tyr	Phe	Ser	Gly	Leu	Leu	Ser	Gly	Ser
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Gly	Ile	Pro	Asn	Phe	Glu	Ser	Lys	Gly	Gly	Cys	Arg	Pro	Phe	Leu	Arg
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Leu	Leu	Lys	Gly	Asp	Ile	Leu	Leu	Lys	Cys	Tyr	His	Lys	Lys	Phe	Arg
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Ser	Pro	Ala	Arg	Asp	Val	Ile	Phe	Arg	Val	Gln	Phe	His	Thr	Cys	Ala
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Ile	His	Asp	Leu	Gly	Val	Val	Phe	Gly	Lys	Glu	Asp	Leu	Asp	Asp	Ala
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Phe	Lys	Asp	Asp	Arg	Phe	Pro	Glu	Tyr	Gly	Lys	Val	Glu	Phe	Val	Phe
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Ser	Tyr	Gly	Pro	Glu	Lys	Ile	Gln	Gly	Met	Glu	His	Leu	Glu	Asn	Gly
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Pro	Ser	Val	Ser	Val	Asp	Tyr	Asn	Thr	Ser	Asp	Pro	Leu	Ile	Arg	Trp
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Asp	Ser	Tyr	Asp	Asn	Phe	Ser	Gly	His	Arg	Asp	Asp	Gly	Met	Glu	Glu
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Val	Val	Gly	His	Thr	Gln	Gly	Pro	Leu	Asp	Gly	Ser	Leu	Tyr	Ala	Lys
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Val	Lys	Lys	Lys	Asp	Ser	Leu	His	Gly	Ser	Thr	Gly	Ala	Val	Asn	Ala
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Ser	Val	Ser	Ser	Asp	Ser	Gly	Asn	Ser	Thr	Ala	Ser	Thr	Lys	Thr	Asp
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Lys	Thr	Asp	Glu	Pro	Val	Pro	Gly	Ala	Ser	Ser	Ala	Thr	Ala	Ala	Leu
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Ser	Pro	Gln	Glu	Lys	Arg	Glu	Leu	Asp	Arg	Leu	Leu	Ser	Gly	Phe	Gly
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Leu	Glu	Arg	Glu	Lys	Gln	Gly	Ala	Met	Tyr	His	Thr	Gln	His	Leu	Arg
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Val	Pro	Ala	Gln	Val	His	Val	Asn	Gly	Gly	Ala	Leu	Ala	Ser	Glu	Arg
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Glu	Thr	Asp	Ile	Leu	Asp	Asp	Glu	Leu	Pro	Asn	Gln	Asp	Gly	His	Ser
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Ala	Gly	Ser	Met	Gly	Thr	Leu	Ser	Ser	Leu	Asp	Gly	Val	Thr	Asn	Thr
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Ser	Glu	Gly	Gly	Tyr	Pro	Glu	Ala	Leu	Ser	Pro	Leu	Thr	Asn	Gly	Leu
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Asp	Lys	Ser	Tyr	Pro	Met	Glu	Pro	Met	Val	Asn	Gly	Gly	Gly	Tyr	Pro
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Tyr	Glu	Ser	Ala	Ser	Arg	Ala	Gly	Pro	Ala	His	Ala	Gly	His	Thr	Ala
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Pro	Met	Arg	Pro	Ser	Tyr	Ser	Ala	Gln	Gly	Leu	Ala	Gly	Tyr	Gln	
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Arg	Glu	Gly	Pro	His	Pro	Ala	Trp	Pro	Gln	Pro	Val	Thr	Thr	Ser	His
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Tyr	Ala	His	Asp	Pro	Ser	Gly	Met	Phe	Arg	Ser	Gln	Ser	Phe	Ser	Glu
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Glu	Ala	Val	Gln	Arg	Gly	Leu	Asn	Ser	Trp	Gln	Gln	Gln	Gln	Gln	Gln
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Gln	Gln	Gln	Pro	Arg	Pro	Pro	Pro	Arg	Gln	Gln	Glu	Arg	Ala	His	Leu
			660					665					670		
Glu	Ser	Leu	Val	Ala	Ser	Arg	Pro	Ser	Pro	Gln	Pro	Leu	Ala	Glu	Thr
		675					680					685			
Pro	Ile	Pro	Ser	Leu	Pro	Glu	Phe	Pro	Arg	Ala	Ala	Ser	Gln	Gln	Glu

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Ile Glu Gln Ser Ile Glu Thr Leu Asn Met Leu Met Leu Asp Leu Glu				
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Pro Ala Ser Ala Ala Pro Leu His Lys Ser Gln Ser Val Pro Gly				720
	725		730	
Ala Trp Pro Gly Ala Ser Pro Leu Ser Ser Gln Pro Leu Ser Gly Ser				735
	740		745	
Ser Arg Gln Ser His Pro Leu Thr Gln Ser Arg Ser Gly Tyr Ile Pro				750
	755		760	
Ser Gly His Ser Leu Gly Thr Pro Glu Pro Ala Pro Arg Ala Ser Leu				765
	770		775	
Glu Ser Val Pro Pro Gly Arg Ser Tyr Ser Pro Tyr Asp Tyr Gln Pro				780
785		790		795
Cys Leu Ala Gly Pro Asn Gln Asp Phe His Ser Lys Ser Pro Ala Ser				800
	805		810	
Ser Ser Leu Pro Ala Phe Leu Pro Thr Thr His Ser Pro Pro Gly Pro				815
	820		825	
Gln Gln Pro Pro Ala Ser Leu Pro Gly Leu Thr Ala Gln Pro Leu Leu				830
	835		840	
Ser Pro Lys Glu Ala Thr Ser Ser Arg Thr Pro Glu Glu Glu				845
	850		855	
Pro Leu Asn Leu Glu Gly Leu Val Ala His Arg Val Ala Gly Val Gln				860
865		870		875
Ala Arg Glu Lys Gln Pro Ala Glu Pro Pro Ala Pro Leu Arg Arg Arg				880
	885		890	
Ala Ala Ser Asp Gly Gln Tyr Glu Asn Gln Ser Pro Glu Ala Thr Ser				895
	900		905	
Pro Arg Ser Pro Gly Val Arg Ser Pro Val Gln Cys Val Ser Pro Glu				910
	915		920	
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	930		935	
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945		950		955
Pro Ser Ser Pro Pro Ser Gly Val Arg Ser Pro Pro Gly Leu Ala				960
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Lys Thr Pro Leu Ser Ala Leu Gly Leu Lys Pro His Asn Pro Ala Asp				975
	980		985	
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	995		1000	
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Tyr Val Glu Ser Val Ala Arg Thr Ala Val Ala Gly Pro Arg Ala Gln				1020
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Asp Ser Glu Pro Lys Ser Phe Ser Ala Pro Ala Thr Gln Ala Tyr Gly				1040
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His Glu Ile Pro Leu Arg Asn Gly Thr Leu Gly Gly Ser Phe Val Ser				1055
	1060		1065	
Pro Ser Pro Leu Ser Thr Ser Ser Pro Ile Leu Ser Ala Asp Ser Thr				1070
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Ser Val Gly Ser Phe Pro Ser Gly Glu Ser Ser Asp Gln Gly Pro Arg				1085
	1090		1095	
Thr Pro Thr Gln Pro Leu Leu Glu Ser Gly Phe Arg Ser Gly Ser Leu				1100
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Gly Gln Pro Ser Pro Ala Gln Arg Asn Tyr Gln Ser Ser Ser Pro				1120
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Leu Pro Thr Val Gly Ser Ser Tyr Ser Ser Pro Asp Tyr Ser Leu Gln				1135
	1140		1145	
His Phe Ser Ser Ser Pro Glu Ser Gln Ala Arg Ala Gln Phe Ser Val				1150
	1155		1160	
Ala Gly Val His Thr Val Pro Gly Ser Pro Gln Ala Arg His Arg Thr				1165
	1170		1175	
			1180	

Val	Gly	Thr	Asn	Thr	Pro	Pro	Ser	Pro	Gly	Phe	Gly	Arg	Arg	Ala	Ile	1185	1190	1195	1200
Asn	Pro	Ser	Met	Ala	Ala	Pro	Ser	Ser	Pro	Ser	Leu	Ser	His	His	Gln	1205	1210	1215	
Met	Met	Gly	Pro	Pro	Gly	Thr	Gly	Phe	His	Gly	Ser	Thr	Val	Ser	Ser	1220	1225	1230	
Pro	Gln	Ser	Ser	Ala	Ala	Thr	Thr	Pro	Gly	Ser	Pro	Ser	Leu	Cys	Arg	1235	1240	1245	
His	Pro	Ala	Gly	Val	Tyr	Gln	Val	Ser	Gly	Leu	His	Asn	Lys	Val	Ala	1250	1255	1260	
Thr	Thr	Pro	Gly	Ser	Pro	Ser	Leu	Gly	Arg	His	Pro	Gly	Ala	His	Gln	1265	1270	1275	1280
Gly	Asn	Leu	Ala	Ser	Gly	Leu	His	Ser	Asn	Ala	Ile	Ala	Ser	Pro	Gly	1285	1290	1295	
Ser	Pro	Ser	Leu	Gly	Arg	His	Leu	Gly	Gly	Ser	Gly	Ser	Val	Val	Pro	1300	1305	1310	
Gly	Ser	Pro	Cys	Leu	Asp	Arg	His	Val	Ala	Tyr	Gly	Gly	Tyr	Ser	Thr	1315	1320	1325	
Pro	Glu	Asp	Arg	Arg	Pro	Thr	Leu	Ser	Arg	Gln	Ser	Ser	Ala	Ser	Gly	1330	1335	1340	
Tyr	Gln	Ala	Pro	Ser	Thr	Pro	Ser	Phe	Pro	Val	Ser	Pro	Ala	Tyr	Tyr	1345	1350	1355	1360
Pro	Gly	Leu	Ser	Ser	Pro	Ala	Thr	Ser	Pro	Ser	Pro	Asp	Ser	Ala	Ala	1365	1370	1375	
Phe	Arg	Gln	Gly	Ser	Pro	Thr	Pro	Ala	Leu	Pro	Glu	Lys	Arg	Arg	Met	1380	1385	1390	
Ser	Val	Gly	Asp	Arg	Ala	Gly	Ser	Leu	Pro	Asn	Tyr	Ala	Thr	Ile	Asn	1395	1400	1405	
Gly	Lys	Val	Ala	Ser	Pro	Val	Pro	Ser	Gly	Met	Ser	Ser	Pro	Ser	Gly	1410	1415	1420	
Gly	Ser	Thr	Val	Ser	Phe	Ser	His	Thr	Leu	Pro	Asp	Phe	Ser	Lys	Tyr	1425	1430	1435	1440
Ser	Met	Pro	Asp	Asn	Ser	Pro	Glu	Thr	Arg	Ala	Lys	Val	Lys	Phe	Val	1445	1450	1455	
Gln	Asp	Thr	Ser	Lys	Tyr	Trp	Tyr	Lys	Pro	Glu	Ile	Ser	Arg	Glu	Gln	1460	1465	1470	
Ala	Ile	Ala	Leu	Leu	Lys	Asp	Gln	Glu	Pro	Gly	Ala	Phe	Ile	Ile	Arg	1475	1480	1485	
Asp	Ser	His	Ser	Phe	Arg	Gly	Ala	Tyr	Gly	Leu	Ala	Met	Lys	Val	Ser	1490	1495	1500	
Ser	Pro	Pro	Pro	Thr	Ile	Met	Gln	Gln	Asn	Lys	Lys	Gly	Asp	Met	Thr	1505	1510	1515	1520
His	Glu	Leu	Val	Arg	His	Phe	Leu	Ile	Glu	Thr	Gly	Pro	Arg	Gly	Val	1525	1530	1535	
Lys	Leu	Lys	Gly	Cys	Pro	Asn	Glu	Pro	Asn	Phe	Gly	Ser	Leu	Ser	Ala	1540	1545	1550	
Leu	Val	Tyr	Gln	His	Ser	Ile	Ile	Pro	Leu	Ala	Leu	Pro	Cys	Lys	Leu	1555	1560	1565	
Val	Ile	Pro	Asn	Arg	Asp	Pro	Thr	Asp	Glu	Ser	Lys	Asp	Ser	Ser	Gly	1570	1575	1580	
Pro	Ala	Asn	Ser	Thr	Ala	Asp	Leu	Leu	Lys	Gln	Gly	Ala	Ala	Cys	Asn	1585	1590	1595	1600
Val	Leu	Phe	Ile	Asn	Ser	Val	Asp	Met	Glu	Ser	Leu	Thr	Gly	Pro	Gln	1605	1610	1615	
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Thr	Asp	Asn	Gln	Arg	Lys	Leu	Phe	Phe	Arg	Arg	His	Tyr	Pro	Leu	Asn	1650	1655	1660	
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 1685 1690 1695
 Gln Gly Ser Thr Thr Cys His Leu Phe Ala Glu Leu Asp Pro Asn Gln
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 <213> Homo sapiens

<400> 242

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Ala	Glu	Glu	Asp	Asp	Ser	Glu	Pro	Leu	Asn	Tyr	Lys	Asp	Pro	Cys
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Ala	Ala	Ala	Phe	Leu	Gly	Asp	Ile	Ala	Leu	Asp	Glu	Glu	Asp	Leu
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Ala	Phe	Gln	Val	Gln	Gln	Ala	Val	Asp	Leu	Arg	Arg	His	Thr	Ala
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Lys	Ser	Ser	Ile	Lys	Ala	Ala	Val	Pro	Gly	Asn	Thr	Ser	Thr	Pro
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Cys	Gln	Ser	Thr	Asn	Gly	Gln	Pro	Gln	Arg	Gly	Ala	Cys	Gly	Arg
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Arg	Gly	Arg	Ser	Arg	Ser	Arg	Arg	Ala	Ala	Thr	Ser	Arg	Pro	Glu
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Val	Trp	Pro	Asp	Gly	Val	Ile	Pro	Phe	Val	Ile	Gly	Gly	Asn	Phe
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Val	Phe	Thr	Tyr	Arg	Pro	Cys	Gly	Cys	Cys	Ser	Tyr	Val	Gly	Arg
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Gly	Ile	Val	Val	His	Glu	Leu	Gly	His	Val	Val	Gly	Phe	Trp	His
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Ala	Arg	Asn	Thr	Phe	Ser	Arg	Gly	Ile	Phe	Leu	Asp	Thr	Ile	Val
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Lys	Tyr	Glu	Val	Asn	Gly	Val	Lys	Pro	Pro	Ile	Gly	Gln	Arg	Thr
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														Pro

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Ala	Cys	Gly	Glu	Thr	Leu	Gln	Asp	Ser	Thr	Gly	Asn	Phe	Ser	Ser	Pro
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Glu	Tyr	Pro	Asn	Gly	Tyr	Ser	Ala	His	Met	His	Cys	Val	Trp	Arg	Ile
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Ser	Val	Thr	Pro	Gly	Glu	Lys	Ile	Leu	Asn	Phe	Thr	Ser	Leu	Asp	
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Leu	Tyr	Arg	Ser	Arg	Leu	Cys	Trp	Tyr	Asp	Tyr	Val	Glu	Val	Arg	Asp
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Arg	Ser	Ser	Ser	Asn	Trp	Val	Gly	Lys	Gly	Phe	Phe	Ala	Val	Tyr	Glu
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Ala	Ile	Cys	Gly	Gly	Asp	Val	Lys	Asp	Tyr	Gly	His	Ile	Gln	Ser	
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Pro	Asn	Tyr	Pro	Asp	Asp	Tyr	Arg	Pro	Ser	Lys	Val	Cys	Ile	Trp	Arg
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Ile	Gln	Val	Ser	Glu	Gly	Phe	His	Val	Gly	Leu	Thr	Phe	Gln	Ser	Phe
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Glu	Ile	Glu	Arg	His	Asp	Ser	Cys	Ala	Tyr	Asp	Tyr	Leu	Glu	Val	Arg
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Asp	Gly	His	Ser	Glu	Ser	Ser	Thr	Leu	Ile	Gly	Arg	Tyr	Cys	Gly	Tyr
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Gln	Arg	Cys	Leu	Asn	Thr	Leu	Gly	Ser	Tyr	Lys	Cys	Ser	Cys	Asp	Pro
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Lys	Glu	Tyr	Pro	Pro	Asn	Lys	Asn	Cys	Ile	Trp	Gln	Leu	Val	Ala	Pro
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Ala	Asp	Ser	Lys	Leu	His	Gly	Lys	Phe	Cys	Gly	Ser	Glu	Lys	Pro	Glu
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Asp	Glu	Cys	Ser	Lys	Asp	Asn	Gly	Gly	Cys	Gln	Gln	Asp	Cys	Val	Asn
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Thr	Phe	Gly	Ser	Tyr	Glu	Cys	Gln	Cys	Arg	Ser	Gly	Phe	Val	Leu	His
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Val Leu Gly Arg Phe Cys Gly Ser Lys Lys Pro Glu Pro Val Leu Ala
820 825 830
Thr Gly Ser Arg Met Phe Leu Arg Phe Tyr Ser Asp Asn Ser Val Gln
835 840 845
Arg Lys Gly Phe Gln Ala Ser His Ala Thr Glu Cys Gly Gly Gln Val
850 855 860
Arg Ala Asp Val Lys Thr Lys Asp Leu Tyr Ser His Ala Gln Phe Gly
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885 890 895
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915 920 925
Asp Ser Thr Ala Pro Arg Leu Gly Arg Tyr Cys Gly Ser Gly Pro Pro
930 935 940
Glu Glu Val Tyr Ser Ala Gly Asp Ser Val Leu Val Lys Phe His Ser
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<400> 246

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			50			55				60					
Arg	Ser	Lys	Lys	Leu	Pro	Leu	Thr	Thr	Leu	Ala	Gln	Cys	Leu	Met	Glu
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Gly	Ser	Ala	Ile	Leu	Gly	Asp	Asp	Thr	Leu	Gly	Lys	Met	Leu	Lys	
			85					90					95		
Leu	Cys	Gly	Glu	Thr	Glu	Asp	Lys	Leu	Ala	Gln	Glu	Leu	Ile	His	Phe
			100				105						110		
Glu	Leu	Gln	Val	Glu	Arg	Asp	Val	Ile	Glu	Pro	Leu	Phe	Leu	Leu	Ala
			115				120					125			
Glu	Val	Glu	Ile	Pro	Asn	Ile	Gln	Lys	Gln	Arg	Lys	His	Leu	Ala	Lys
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Leu	Val	Leu	Asp	Met	Asp	Ser	Ser	Arg	Thr	Arg	Trp	Gln	Gln	Thr	Ser
					150				155					160	
Lys	Ser	Ser	Gly	Leu	Ser	Ser	Ser	Leu	Gln	Pro	Ala	Gly	Ala	Lys	Ala
					165			170						175	
Asp	Ala	Leu	Arg	Glu	Glu	Met	Glu	Glu	Ala	Ala	Asn	Arg	Val	Glu	Ile
			180				185					190			
Cys	Arg	Asp	Gln	Leu	Ser	Ala	Asp	Met	Tyr	Ser	Phe	Val	Ala	Lys	Glu
			195				200					205			

Ile	Asp	Tyr	Ala	Asn	Tyr	Phe	Gln	Thr	Leu	Ile	Glu	Val	Gln	Ala	Glu
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Tyr	His	Arg	Lys	Ser	Leu	Thr	Leu	Leu	Gln	Ala	Val	Leu	Pro	Gln	Ile
225					230					235					240
Lys	Ala	Gln	Gln	Glu	Ala	Trp	Val	Glu	Lys	Pro	Ser	Phe	Gly	Lys	Pro
				245					250					255	
Leu	Glu	Glu	His	Leu	Thr	Ile	Ser	Gly	Arg	Glu	Ile	Ala	Phe	Pro	Ile
			260					265					270		
Glu	Ala	Cys	Val	Thr	Met	Leu	Leu	Glu	Cys	Gly	Met	Gln	Glu	Glu	Gly
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His	Ala	Ile	Ala	Gly	Ala	Leu	Lys	Ser	Tyr	Leu	Arg	Glu	Leu	Pro	Glu
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Pro	Leu	Met	Thr	Phe	Glu	Leu	Tyr	Asp	Glu	Trp	Ile	Gln	Ala	Ser	Asn
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Val	Gln	Glu	Gln	Asp	Lys	Lys	Leu	Gln	Ala	Leu	Trp	Asn	Ala	Cys	Glu
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Gln	Leu	Ser	Pro	Val	Ser	Leu	Ser	Pro	Thr	Pro	Pro	Ser	Thr	Pro	Ser
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Pro	Tyr	Gly	Leu	Ser	Tyr	Pro	Gln	Gly	Tyr	Ser	Leu	Ala	Ser	Gly	Gln

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	725	730
Thr Leu Pro Pro Pro Gln Pro Pro Thr Val Asn Leu Ser Ala Ser Ser		735
	740	745
Pro Gln Ser Thr Glu Ala Pro Met Leu Asp Gly Met Ser Pro Gly Glu		750
	755	760
Ser Met Ser Thr Asp Leu Val His Phe Asp Ile Pro Ser Ile His Ile		765
	770	775
Glu Leu Gly Ser Thr Leu Arg Leu Ser Pro Leu Glu His Met Arg Arg		780
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<210> 247
 <211> 2850
 <212> DNA
 <213> Homo sapiens

<400> 247

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<210> 248
 <211> 173
 <212> PRT
 <213> Homo sapiens

<400> 248

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			20					25					30		
Phe	Ile	Glu	Asp	Leu	Lys	Lys	Tyr	Gly	Ala	Thr	Thr	Val	Val	Arg	Val
			35					40				45			
Cys	Glu	Val	Thr	Tyr	Asp	Lys	Thr	Pro	Leu	Glu	Lys	Asp	Gly	Ile	Thr
			50			55					60				
Val	Val	Asp	Trp	Pro	Phe	Asp	Asp	Gly	Ala	Pro	Pro	Gly	Lys	Val	
65					70					75				80	
Val	Glu	Asp	Trp	Leu	Ser	Leu	Val	Lys	Ala	Lys	Phe	Cys	Glu	Ala	Pro
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Gly	Ser	Cys	Val	Ala	Val	His	Cys	Val	Ala	Gly	Leu	Gly	Arg	Ala	Pro
			100					105					110		
Val	Leu	Val	Ala	Leu	Ala	Leu	Ile	Glu	Ser	Gly	Met	Lys	Tyr	Glu	Asp
			115				120					125			
Ala	Ile	Gln	Phe	Ile	Arg	Gln	Lys	Arg	Arg	Gly	Ala	Ile	Asn	Ser	Lys
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Gln	Leu	Thr	Tyr	Leu	Glu	Lys	Tyr	Arg	Pro	Lys	Gln	Arg	Leu	Arg	Phe
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<210> 249
 <211> 3853
 <212> DNA
 <213> Homo sapiens

<400> 249

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<210> 250
 <211> 1179
 <212> PRT
 <213> Homo sapiens

<400> 250
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Val	Gln	Arg	Gly	Gly	Arg	Gln	Thr	Met	Thr	Ala	Leu	Gly	Thr	Asp	Thr
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Ala	Arg	Lys	Glu	Ala	Phe	Thr	Glu	Ala	Arg	Gly	Ala	Arg	Arg	Gly	Val
			260					265						270	
Lys	Lys	Val	Met	Val	Ile	Val	Thr	Asp	Gly	Glu	Ser	His	Asp	Asn	His
	275						280					285			
Arg	Leu	Lys	Lys	Val	Ile	Gln	Asp	Cys	Glu	Asp	Glu	Asn	Ile	Gln	Arg
	290					295					300				
Phe	Ser	Ile	Ala	Ile	Leu	Gly	Ser	Tyr	Asn	Arg	Gly	Asn	Leu	Ser	Thr
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Glu	Lys	Phe	Val	Glu	Glu	Ile	Lys	Ser	Ile	Ala	Ser	Glu	Pro	Thr	Glu
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Lys	His	Phe	Phe	Asn	Val	Ser	Asp	Glu	Leu	Ala	Leu	Val	Thr	Ile	Val
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Lys	Thr	Leu	Gly	Glu	Arg	Ile	Phe	Ala	Leu	Glu	Ala	Thr	Ala	Asp	Gln
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Ser	Ala	Ala	Ser	Phe	Glu	Met	Glu	Met	Ser	Gln	Thr	Gly	Phe	Ser	Ala
	370					375					380				
His	Tyr	Ser	Gln	Asp	Trp	Val	Met	Leu	Gly	Ala	Val	Gly	Ala	Tyr	Asp
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Trp	Asn	Gly	Thr	Val	Val	Met	Gln	Lys	Ala	Ser	Gln	Ile	Ile	Ile	Pro
			405					410						415	
Arg	Asn	Thr	Thr	Phe	Asn	Val	Glu	Ser	Thr	Lys	Lys	Asn	Glu	Pro	Leu
			420					425					430		
Ala	Ser	Tyr	Leu	Gly	Tyr	Thr	Val	Asn	Ser	Ala	Thr	Ala	Ser	Ser	Gly
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Asp	Val	Leu	Tyr	Ile	Ala	Gly	Gln	Pro	Arg	Tyr	Asn	His	Thr	Gly	Gln
	450					455					460				
Val	Ile	Ile	Tyr	Arg	Met	Glu	Asp	Gly	Asn	Ile	Lys	Ile	Leu	Gln	Thr
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Leu	Ser	Gly	Glu	Gln	Ile	Gly	Ser	Tyr	Phe	Gly	Ser	Ile	Leu	Thr	Thr
				485				490						495	
Thr	Asp	Ile	Asp	Lys	Asp	Ser	Asn	Thr	Asp	Ile	Leu	Leu	Val	Gly	Ala
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 Tyr Ala Leu Asn Gln Thr Arg Phe Glu Tyr Gln Met Ser Leu Glu Pro
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 Ile Lys Gln Thr Cys Cys Ser Ser Arg Gln His Asn Ser Cys Thr Thr
 545 550 555 560
 Glu Asn Lys Asn Glu Pro Cys Gly Ala Arg Phe Gly Thr Ala Ile Ala
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 Ala Val Lys Asp Leu Asn Leu Asp Gly Phe Asn Asp Ile Val Ile Gly
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 Ala Pro Leu Glu Asp Asp His Gly Gly Ala Val Tyr Ile Tyr His Gly
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 Ser Gly Lys Thr Ile Arg Lys Glu Tyr Ala Gln Arg Ile Pro Ser Gly
 610 615 620
 Gly Asp Gly Lys Thr Leu Lys Phe Phe Gly Gln Ser Ile His Gly Glu
 625 630 635 640
 Met Asp Leu Asn Gly Asp Gly Leu Thr Asp Val Thr Ile Gly Gly Leu
 645 650 655
 Gly Gly Ala Ala Leu Phe Trp Ser Arg Asp Val Ala Val Val Lys Val
 660 665 670
 Thr Met Asn Phe Glu Pro Asn Lys Val Asn Ile Gln Lys Lys Asn Cys
 675 680 685
 His Met Glu Gly Lys Glu Thr Val Cys Ile Asn Ala Thr Val Cys Phe
 690 695 700
 Glu Val Lys Leu Lys Ser Lys Glu Asp Thr Ile Tyr Glu Ala Asp Leu
 705 710 715 720
 Gln Tyr Arg Val Thr Leu Asp Ser Leu Arg Gln Ile Ser Arg Ser Phe
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 Phe Ser Gly Thr Gln Glu Arg Lys Val Gln Arg Asn Ile Thr Val Arg
 740 745 750
 Lys Ser Glu Cys Thr Lys His Ser Phe Tyr Met Leu Asp Lys His Asp
 755 760 765
 Phe Gln Asp Ser Val Arg Ile Thr Leu Asp Phe Asn Leu Thr Asp Pro
 770 775 780
 Glu Asn Gly Pro Val Leu Asp Asp Ser Leu Pro Asn Ser Val His Glu
 785 790 795 800
 Tyr Ile Pro Phe Ala Lys Asp Cys Gly Asn Lys Glu Lys Cys Ile Ser
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 Asp Leu Ser Leu His Val Ala Thr Thr Glu Lys Asp Leu Leu Ile Val
 820 825 830
 Arg Ser Gln Asn Asp Lys Phe Asn Val Ser Leu Thr Val Lys Asn Thr
 835 840 845
 Lys Asp Ser Ala Tyr Asn Thr Arg Thr Ile Val His Tyr Ser Pro Asn
 850 855 860
 Leu Val Phe Ser Gly Ile Glu Ala Ile Gln Lys Asp Ser Cys Glu Ser
 865 870 875 880
 Asn His Asn Ile Thr Cys Lys Val Gly Tyr Pro Phe Leu Arg Arg Gly
 885 890 895
 Glu Met Val Thr Phe Lys Ile Leu Phe Gln Phe Asn Thr Ser Tyr Leu
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 Met Glu Asn Val Thr Ile Tyr Leu Ser Ala Thr Ser Asp Ser Glu Glu
 915 920 925
 Pro Pro Glu Thr Leu Ser Asp Asn Val Val Asn Ile Ser Ile Pro Val
 930 935 940
 Lys Tyr Glu Val Gly Leu Gln Phe Tyr Ser Ser Ala Ser Glu Tyr His
 945 950 955 960
 Ile Ser Ile Ala Ala Asn Glu Thr Val Pro Glu Val Ile Asn Ser Thr
 965 970 975
 Glu Asp Ile Gly Asn Glu Ile Asn Ile Phe Tyr Leu Ile Arg Lys Ser
 980 985 990
 Gly Ser Phe Pro Met Pro Glu Leu Lys Leu Ser Ile Ser Phe Pro Asn

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Ser Glu Asn Ala Asn Cys Arg Pro His Ile Phe Glu Asp Pro Phe Ser		
1025	1030	1035
Ile Asn Ser Gly Lys Met Thr Thr Ser Thr Asp His Leu Lys Arg		
1045	1050	1055
Gly Thr Ile Leu Asp Cys Asn Thr Cys Lys Phe Ala Thr Ile Thr Cys		
1060	1065	1070
Asn Leu Thr Ser Ser Asp Ile Ser Gln Val Asn Val Ser Leu Ile Leu		
1075	1080	1085
Trp Lys Pro Thr Phe Ile Lys Ser Tyr Phe Ser Ser Leu Asn Leu Thr		
1090	1095	1100
Ile Arg Gly Glu Leu Arg Ser Glu Asn Ala Ser Leu Val Leu Ser Ser		
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Ser Asn Gln Lys Arg Glu Leu Ala Ile Gln Ile Ser Lys Asp Gly Leu		
1125	1130	1135
Pro Gly Arg Val Pro Leu Trp Val Ile Leu Leu Ser Ala Phe Ala Gly		
1140	1145	1150
Leu Leu Leu Leu Met Leu Leu Ile Leu Ala Leu Trp Lys Ile Gly Phe		
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 <211> 5010
 <212> DNA
 <213> Homo sapiens

<400> 251

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gggtttcctg	gaatgcaagg	acctgagggg	ccacagggac	caccaggaca	aaaggggtgat	240
actggagaac	caggactacc	tggaacaaaa	gggacaagag	gacctccggg	agcatctggc	300
taccctggaa	accaggact	tcccgggaatt	cctggccaag	acggccccgc	aggcccccca	360
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<210> 252
 <211> 1669
 <212> PRT
 <213> Homo sapiens

<400> 252

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Gly Ser Gly Cys Gly Lys Cys Asp Cys His Gly Val Lys Gly Gln Lys
35 40 45
Gly Glu Arg Gly Leu Pro Gly Leu Gln Gly Val Ile Gly Phe Pro Gly
50 55 60
Met Gln Gly Pro Glu Gly Pro Gln Gly Pro Pro Gly Gln Lys Gly Asp
65 70 75 80
Thr Gly Glu Pro Gly Leu Pro Gly Thr Lys Gly Thr Arg Gly Pro Pro
85 90 95
Gly Ala Ser Gly Tyr Pro Gly Asn Pro Gly Leu Pro Gly Ile Pro Gly
100 105 110
Gln Asp Gly Pro Pro Gly Pro Pro Gly Ile Pro Gly Cys Asn Gly Thr
115 120 125
Lys Gly Glu Arg Gly Pro Leu Gly Pro Pro Gly Leu Pro Gly Phe Ala
130 135 140
Gly Asn Pro Gly Pro Pro Gly Leu Pro Gly Met Lys Gly Asp Pro Gly
145 150 155 160
Glu Ile Leu Gly His Val Pro Gly Met Leu Leu Lys Gly Glu Arg Gly
165 170 175
Phe Pro Gly Ile Pro Gly Thr Pro Gly Pro Pro Gly Leu Pro Gly Leu
180 185 190
Gln Gly Pro Val Gly Pro Pro Gly Phe Thr Gly Pro Pro Gly Pro Pro
195 200 205
Gly Pro Pro Gly Pro Pro Gly Glu Lys Gly Gln Met Gly Leu Ser Phe
210 215 220
Gln Gly Pro Lys Gly Asp Lys Gly Asp Gln Gly Val Ser Gly Pro Pro
225 230 235 240
Gly Val Pro Gly Gln Ala Gln Val Gln Glu Lys Gly Asp Phe Ala Thr
245 250 255
Lys Gly Glu Lys Gly Gln Lys Gly Glu Pro Gly Phe Gln Gly Met Pro
260 265 270
Gly Val Gly Glu Lys Gly Glu Pro Gly Lys Pro Gly Pro Arg Gly Lys
275 280 285
Pro Gly Lys Asp Gly Asp Lys Gly Glu Lys Gly Ser Pro Gly Phe Pro
290 295 300
Gly Glu Pro Gly Tyr Pro Gly Leu Ile Gly Arg Gln Gly Pro Gln Gly
305 310 315 320
Glu Lys Gly Glu Ala Gly Pro Pro Gly Pro Pro Gly Ile Val Ile Gly
325 330 335
Thr Gly Pro Leu Gly Glu Lys Gly Glu Arg Gly Tyr Pro Gly Thr Pro
340 345 350
Gly Pro Arg Gly Glu Pro Gly Pro Lys Gly Phe Pro Gly Leu Pro Gly
355 360 365
Gln Pro Gly Pro Pro Gly Leu Pro Val Pro Gly Gln Ala Gly Ala Pro
370 375 380
Gly Phe Pro Gly Glu Arg Gly Glu Lys Gly Asp Arg Gly Phe Pro Gly
385 390 395 400
Thr Ser Leu Pro Gly Pro Ser Gly Arg Asp Gly Leu Pro Gly Pro Pro
405 410 415
Gly Ser Pro Gly Pro Pro Gly Gln Pro Gly Tyr Thr Asn Gly Ile Val
420 425 430
Glu Cys Gln Pro Gly Pro Pro Gly Asp Gln Gly Pro Pro Gly Ile Pro
435 440 445
Gly Gln Pro Gly Phe Ile Gly Glu Ile Gly Glu Lys Gly Gln Lys Gly
450 455 460
Glu Ser Cys Leu Ile Cys Asp Ile Asp Gly Tyr Arg Gly Pro Pro Gly
465 470 475 480

Pro Gln Gly Pro Pro Gly Glu Ile Gly Phe Pro Gly Gln Pro Gly Ala
 485 490 495
 Lys Gly Asp Arg Gly Leu Pro Gly Arg Asp Gly Val Ala Gly Val Pro
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 Gly Pro Gln Gly Thr Pro Gly Leu Ile Gly Gln Pro Gly Ala Lys Gly
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 Glu Pro Gly Glu Phe Tyr Phe Asp Leu Arg Leu Lys Gly Asp Lys Gly
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 Pro Gly Arg Asp Gly His Pro Gly Leu Pro Gly Pro Lys Gly Ser Pro
 565 570 575
 Gly Ser Val Gly Leu Lys Gly Glu Arg Gly Pro Pro Gly Gly Val Gly
 580 585 590
 Phe Pro Gly Ser Arg Gly Asp Thr Gly Pro Pro Gly Pro Gly Tyr
 595 600 605
 Gly Pro Ala Gly Pro Ile Gly Asp Lys Gly Gln Ala Gly Phe Pro Gly
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 Ile Val Pro Leu Pro Gly Pro Pro Gly Ala Glu Gly Leu Pro Gly Ser
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 Phe Pro Gly Leu Asp Met Pro Gly Pro Lys Gly Asp Lys Gly Ala Gln
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 Gln Gln Gly Ala Pro Gly Ile Pro Gly Phe Pro Gly Ser Lys Gly Glu
 865 870 875 880
 Met Gly Val Met Gly Thr Pro Gly Gln Pro Gly Ser Pro Gly Pro Val
 885 890 895
 Gly Ala Pro Gly Leu Pro Gly Glu Lys Gly Asp His Gly Phe Pro Gly
 900 905 910
 Ser Ser Gly Pro Arg Gly Asp Pro Gly Leu Lys Gly Asp Lys Gly Asp
 915 920 925
 Val Gly Leu Pro Gly Lys Pro Gly Ser Met Asp Lys Val Asp Met Gly
 930 935 940
 Ser Met Lys Gly Gln Lys Gly Asp Gln Gly Glu Lys Gly Gln Ile Gly
 945 950 955 960
 Pro Ile Gly Glu Lys Gly Ser Arg Gly Asp Pro Gly Thr Pro Gly Val

965 970 975
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 980 985 990
 Gly Asp Pro Gly Ile Ser Gly Thr Pro Gly Ala Pro Gly Leu Pro Gly
 995 1000 1005
 Pro Lys Gly Ser Val Gly Gly Met Gly Leu Pro Gly Thr Pro Gly Glu
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 Lys Gly Val Pro Gly Ile Pro Gly Pro Gln Gly Ser Pro Gly Leu Pro
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 1045 1050 1055
 Ile Gly Ile Pro Gly Leu Arg Gly Glu Lys Gly Asp Gln Gly Ile Ala
 1060 1065 1070
 Gly Phe Pro Gly Ser Pro Gly Glu Lys Gly Glu Lys Gly Ser Ile Gly
 1075 1080 1085
 Ile Pro Gly Met Pro Gly Ser Pro Gly Leu Lys Gly Ser Pro Gly Ser
 1090 1095 1100
 Val Gly Tyr Pro Gly Ser Pro Gly Leu Pro Gly Glu Lys Gly Asp Lys
 1105 1110 1115 1120
 Gly Leu Pro Gly Leu Asp Gly Ile Pro Gly Val Lys Gly Glu Ala Gly
 1125 1130 1135
 Leu Pro Gly Thr Pro Gly Pro Thr Gly Pro Ala Gly Gln Lys Gly Glu
 1140 1145 1150
 Pro Gly Ser Asp Gly Ile Pro Gly Ser Ala Gly Glu Lys Gly Glu Pro
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 Gly Leu Pro Gly Arg Gly Phe Pro Gly Phe Pro Gly Ala Lys Gly Asp
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 Lys Gly Ser Lys Gly Glu Val Gly Phe Pro Gly Leu Ala Gly Ser Pro
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 1285 1290 1295
 Ser Pro Gly Ile Thr Gly Ser Lys Gly Asp Met Gly Pro Pro Gly Val
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Asp	Gly	His	Asp	Arg	Gly
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Val	Ala	Gln	Gln	Ala	Val
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Thr	Leu	Ala	Ala	Gly	His
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Leu	Asn	Ser	Leu	Gly	Arg
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 <212> PRT
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<400> 257

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Gln Tyr Lys Leu Phe Tyr Ala Pro Ala Ala Gly Gly Pro Glu Glu Leu		
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Ser	Pro	Val	Asp	Gly	Thr	Arg	Pro	Ser	Glu	Ser	Ile	Val	Val	Pro	Gly	1970	1975	1980
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Ser	Pro	His	Arg	Ala	Ala	Thr	Ser	Tyr	Arg	Leu	Lys	Leu	Ser	Pro	Ala	2225	2230	2235
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His	Thr	Thr	Val	Lys	Pro	Thr	Glu	Ala	Pro	Thr	Glu	Pro	Pro	Thr	Pro	2290	2295	2300
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Phe	Asp	Glu	Ile	Ser	Pro	Ala	Gly	Ile	Gln	Val	Ser	Phe	Val	Gln	Tyr	2355	2360	2365
Ser	Asp	Glu	Val	Lys	Ser	Glu	Phe	Lys	Leu	Asn	Thr	Tyr	Asn	Asp	Lys			

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2385	2390	2395
Thr Arg Thr Gly Lys	Ala Leu Thr Phe Ile	Lys Glu Lys Val Leu Thr
2405	2410	2415
Trp Glu Ser Gly Met	Arg Lys Asn Val Pro	Lys Val Leu Val Val
2420	2425	2430
Thr Asp Gly Arg Ser	Gln Asp Glu Val Lys	Lys Ala Ala Leu Val Ile
2435	2440	2445
Gln Gln Ser Gly Phe	Ser Val Phe Val Val	Gly Val Ala Asp Val Asp
2450	2455	2460
Tyr Asn Glu Leu Ala	Asn Ile Ala Ser Lys	Pro Ser Glu Arg His Val
2465	2470	2475
Phe Ile Val Asp Asp	Phe Glu Ser Phe Glu	Lys Ile Glu Asp Asn Leu
2485	2490	2495
Ile Thr Phe Val Cys	Glu Thr Ala Thr	Ser Ser Cys Pro Leu Ile Tyr
2500	2505	2510
Leu Asp Gly Tyr Thr	Ser Pro Gly Phe Lys	Met Leu Glu Ala Tyr Asn
2515	2520	2525
Leu Thr Glu Lys Asn	Phe Ala Ser Val Gln	Gly Val Ser Leu Glu Ser
2530	2535	2540
Gly Ser Phe Pro Ser	Tyr Ser Ala Tyr Arg	Ile Gln Lys Asn Ala Phe
2545	2550	2555
Val Asn Gln Pro Thr	Ala Asp Leu His Pro	Asn Gly Leu Pro Pro Ser
2565	2570	2575
Tyr Thr Ile Ile Leu	Leu Phe Arg Leu Leu	Pro Glu Thr Pro Ser Asp
2580	2585	2590
Pro Phe Ala Ile Trp	Gln Ile Thr Asp Arg	Asp Tyr Lys Pro Gln Val
2595	2600	2605
Gly Val Ile Ala Asp	Pro Ser Lys Thr Leu	Ser Phe Phe Asn Lys
2610	2615	2620
Asp Thr Arg Gly Glu	Val Gln Thr Val Thr	Phe Asp Thr Glu Glu Val
2625	2630	2635
Lys Thr Leu Phe Tyr	Gly Ser Phe His Lys	Val His Ile Val Val Thr
2645	2650	2655
Ser Lys Ser Val Lys	Ile Tyr Ile Asp Cys	Tyr Glu Ile Ile Glu Lys
2660	2665	2670
Asp Ile Lys Glu Ala	Gly Asn Ile Thr Thr	Asp Gly Tyr Glu Ile Leu
2675	2680	2685
Gly Lys Leu Leu Lys	Gly Glu Arg Lys Ser	Ala Ala Phe Gln Ile Gln
2690	2695	2700
Ser Phe Asp Ile Val	Cys Ser Pro Val Trp	Thr Ser Arg Asp Arg Cys
2705	2710	2715
Cys Asp Ile Pro Ser	Arg Arg Asp Glu Gly	Lys Cys Pro Ala Phe Pro
2725	2730	2735
Asn Ser Cys Thr Cys	Thr Gln Asp Ser Val	Gly Pro Pro Gly Pro Pro
2740	2745	2750
Gly Pro Ala Gly Gly	Pro Gly Ala Lys Gly	Pro Arg Gly Glu Arg Gly
2755	2760	2765
Ile Ser Gly Ala Ile	Gly Pro Gly Pro Arg	Gly Asp Ile Gly Pro
2770	2775	2780
Pro Gly Pro Gln Gly	Pro Gly Pro Gln Gly	Pro Asn Gly Leu Ser
2785	2790	2795
Ile Pro Gly Glu Gln	Gly Arg Gln Gly Met	Lys Gly Asp Ala Gly Glu
2805	2810	2815
Pro Gly Leu Pro Gly	Arg Thr Gly Thr Pro	Gly Leu Pro Gly Pro Pro
2820	2825	2830
Gly Pro Met Gly Pro	Pro Gly Asp Arg Gly	Phe Thr Gly Lys Asp Ser
2835	2840	2845
Ala Met Gly Pro Arg	Gly Pro Gly Arg Pro	Gly Ser Pro Gly Ser
2850	2855	2860

Pro Gly Val Thr Gly Pro Ser Gly Lys Pro Gly Lys Pro Gly Asp His
 2865 2870 2875 2880
 Gly Arg Pro Gly Pro Ser Gly Leu Lys Gly Glu Lys Gly Asp Arg Gly
 2885 2890 2895
 Asp Ile Ala Ser Gln Asn Met Met Arg Ala Val Ala Arg Gln Val Cys
 2900 2905 2910
 Glu Gln Leu Ile Ser Gly Gln Met Asn Arg Phe Asn Gln Met Leu Asn
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 Gln Ile Pro Asn Asp Tyr Gln Ser Ser Arg Asn Gln Pro Gly Pro Pro
 2930 2935 2940
 Gly Pro Pro Gly Pro Pro Gly Ser Ala Gly Ala Arg Gly Glu Pro Gly
 2945 2950 2955 2960
 Pro Gly Gly Arg Pro Gly Phe Pro Gly Thr Pro Gly Met Gln Gly Pro
 2965 2970 2975
 Pro Gly Glu Arg Gly Leu Pro Gly Glu Lys Gly Glu Arg Gly Thr Gly
 2980 2985 2990
 Ser Ser Gly Pro Arg Gly Leu Pro Gly Pro Pro Gly Pro Gln Gly Glu
 2995 3000 3005
 Ser Arg Thr Gly Pro Pro Gly Ser Thr Gly Ser Arg Gly Pro Pro Gly
 3010 3015 3020
 Pro Pro Gly Arg Pro Gly Asn Ser Gly Ile Gln Gly Pro Pro Gly Pro
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 Gln Ser Tyr Pro Gly Ser Gly
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 <211> 1717
 <212> DNA
 <213> Homo sapiens

<400> 258
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 attggtggta ccagtggcca gtactatgat tatgattttc ccctatcaat ttatgggcaa 180
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 tgtgatgagc tgaaattgaa aagtgtacca atggtgcctc ctggaatcaa gtatctttac 300
 cttaggaata accagattga ccatattgat gaaaaggcct ttgagaatgt aactgatctg 360
 cagtggctca ttctagatca caaccttcta gaaaactcca agataaaaagg gagagttttc 420
 tctaaattga acaactgaa gaagctgcatt ataaaccaca acaacctgac agagtctgtg 480
 ggcccacttc ccaaattctc ggaggatctg cagcttactc ataacaagat cacaagctg 540
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1717

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<211> 338
<212> PRT
<213> Homo sapiens

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35 40 45
Ser Ala Met Tyr Cys Asp Glu Leu Lys Leu Lys Ser Val Pro Met Val
50 55 60
Pro Pro Gly Ile Lys Tyr Leu Tyr Leu Arg Asn Asn Gln Ile Asp His
65 70 75 80
Ile Asp Glu Lys Ala Phe Glu Asn Val Thr Asp Leu Gln Trp Leu Ile
85 90 95
Leu Asp His Asn Leu Leu Glu Asn Ser Lys Ile Lys Gly Arg Val Phe
100 105 110
Ser Lys Leu Lys Gln Leu Lys Lys Leu His Ile Asn His Asn Asn Leu
115 120 125
Thr Glu Ser Val Gly Pro Leu Pro Lys Ser Leu Glu Asp Leu Gln Leu
130 135 140
Thr His Asn Lys Ile Thr Lys Leu Gly Ser Phe Glu Gly Leu Val Asn
145 150 155 160
Leu Thr Phe Ile His Leu Gln His Asn Arg Leu Lys Glu Asp Ala Val
165 170 175
Ser Ala Ala Phe Lys Gly Leu Lys Ser Leu Glu Tyr Leu Asp Leu Ser
180 185 190
Phe Asn Gln Ile Ala Arg Leu Pro Ser Gly Leu Pro Val Ser Leu Leu
195 200 205
Thr Leu Tyr Leu Asp Asn Asn Lys Ile Ser Asn Ile Pro Asp Glu Tyr
210 215 220
Phe Lys Arg Phe Asn Ala Leu Gln Tyr Leu Arg Leu Ser His Asn Glu
225 230 235 240
Leu Ala Asp Ser Gly Ile Pro Gly Asn Ser Phe Asn Val Ser Ser Leu
245 250 255
Val Glu Leu Asp Leu Ser Tyr Asn Lys Leu Lys Asn Ile Pro Thr Val
260 265 270
Asn Glu Asn Leu Glu Asn Tyr Tyr Leu Glu Val Asn Gln Leu Glu Lys
275 280 285
Phe Asp Ile Lys Ser Phe Cys Lys Ile Leu Gly Pro Leu Ser Tyr Ser
290 295 300
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325 330 335
Leu Asn

<210> 260
<211> 6728
<212> DNA
<213> Homo sapiens

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 <211> 1464
 <212> PRT
 <213> Homo sapiens

<400> 261
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Glu	Asp	Ile	Pro	Pro	Ile	Thr	Cys	Val	Gln	Asn	Gly	Leu	Arg	Tyr	His
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Asp	Arg	Asp	Val	Trp	Lys	Pro	Glu	Pro	Cys	Arg	Ile	Cys	Val	Cys	Asp
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Asn	Gly	Lys	Val	Leu	Cys	Asp	Asp	Val	Ile	Cys	Asp	Glu	Thr	Lys	Asn
65					70					75					80
Cys	Pro	Gly	Ala	Glu	Val	Pro	Glu	Gly	Glu	Cys	Cys	Pro	Val	Cys	Pro
			85						90					95	
Asp	Gly	Ser	Glu	Ser	Pro	Thr	Asp	Gln	Glu	Thr	Thr	Gly	Val	Glu	Gly
			100					105					110		
Pro	Lys	Gly	Asp	Thr	Gly	Pro	Arg	Gly	Pro	Arg	Gly	Pro	Ala	Gly	Pro
	115						120					125			
Pro	Gly	Arg	Asp	Gly	Ile	Pro	Gly	Gln	Pro	Gly	Leu	Pro	Gly	Pro	Pro
	130					135					140				
Gly	Pro	Pro	Gly	Pro	Pro	Gly	Pro	Pro	Gly	Leu	Gly	Gly	Asn	Phe	Ala
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Pro	Gln	Leu	Ser	Tyr	Gly	Tyr	Asp	Glu	Lys	Ser	Thr	Gly	Gly	Ile	Ser
			165						170					175	
Val	Pro	Gly	Pro	Met	Gly	Pro	Ser	Gly	Pro	Arg	Gly	Leu	Pro	Gly	Pro
			180					185					190		
Pro	Gly	Ala	Pro	Gly	Pro	Gln	Gly	Phe	Gln	Gly	Pro	Pro	Gly	Glu	Pro
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Gly	Glu	Pro	Gly	Ala	Ser	Gly	Pro	Met	Gly	Pro	Arg	Gly	Pro	Pro	Gly
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Gly	Thr	Ala	Gly	Leu	Pro	Gly	Met	Lys	Gly	His	Arg	Gly	Phe	Ser	Gly
			260					265					270		
Leu	Asp	Gly	Ala	Lys	Gly	Asp	Ala	Gly	Pro	Ala	Gly	Pro	Lys	Gly	Glu
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Pro	Gly	Ser	Pro	Gly	Glu	Asn	Gly	Ala	Pro	Gly	Gln	Met	Gly	Pro	Arg
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Gly	Leu	Pro	Gly	Glu	Arg	Gly	Arg	Pro	Gly	Ala	Pro	Gly	Pro	Ala	Gly
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Ala	Arg	Gly	Asn	Asp	Gly	Ala	Thr	Gly	Ala	Ala	Gly	Pro	Pro	Gly	Pro
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Thr	Gly	Pro	Ala	Gly	Pro	Pro	Gly	Phe	Pro	Gly	Ala	Val	Gly	Ala	Lys
			340					345					350		
Gly	Glu	Ala	Gly	Pro	Gln	Gly	Pro	Arg	Gly	Ser	Glu	Gly	Pro	Gln	Gly
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Ala	Gly	Asn	Pro	Gly	Ala	Asp	Gly	Gln	Pro	Gly	Ala	Lys	Gly	Ala	Asn
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Gly	Ala	Pro	Gly	Ile	Ala	Gly	Ala	Pro	Gly	Phe	Pro	Gly	Ala	Arg	Gly
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Pro	Ser	Gly	Pro	Gln	Gly	Pro	Gly	Gly	Pro	Pro	Gly	Pro	Lys	Gly	Asn
			420					425					430		
Ser	Gly	Glu	Pro	Gly	Ala	Pro	Gly	Ser	Lys	Gly	Asp	Thr	Gly	Ala	Lys
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 Arg Gly Ile Lys Gly His Arg Gly Phe Ser Gly Leu Gln Gly Pro Pro
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 1125 1130 1135
 Pro Ala Gly Pro Arg Gly Pro Pro Gly Ser Ala Gly Ala Pro Gly Lys
 1140 1145 1150
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 Gly Arg Thr Gly Asp Ala Gly Pro Val Gly Pro Pro Gly Pro Pro Gly
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 Leu Pro Gln Pro Pro Gln Glu Lys Ala His Asp Gly Gly Arg Tyr Tyr
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 Cys His Ser Asp Trp Lys Ser Gly Glu Tyr Trp Ile Asp Pro Asn Gln
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 1300 1305 1310
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 1315 1320 1325
 Ser Met Thr Asp Gly Phe Gln Phe Glu Tyr Gly Gly Gln Gly Ser Asp
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 Pro Ala Asp Val Ala Ile Gln Leu Thr Phe Leu Arg Leu Met Ser Thr
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 1365 1370 1375
 Met Asp Gln Gln Thr Gly Asn Leu Lys Lys Ala Leu Leu Leu Lys Gly
 1380 1385 1390
 Ser Asn Glu Ile Glu Ile Arg Ala Glu Gly Asn Ser Arg Phe Thr Tyr
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 Ser Val Thr Val Asp Gly Cys Thr Ser His Thr Gly Ala Trp Gly Lys
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 <212> DNA
 <213> Homo sapiens

<400> 262

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<210> 263
 <211> 412
 <212> PRT
 <213> Homo sapiens

<400> 263

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			20					25					30		
Gly	His	Ile	Lys	Lys	Lys	Arg	Val	Glu	Ala	Ile	Arg	Gly	Gln	Ile	Leu

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<210> 265
 <211> 1366
 <212> PRT
 <213> Homo sapiens

<400> 265

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Gly	Pro	Ala	Gly	Asp	Arg	Gly	Pro	Arg	Gly	Glu	Arg	Gly	Pro	Pro	Gly
		35					40					45			
Pro	Pro	Gly	Arg	Asp	Gly	Glu	Asp	Gly	Pro	Thr	Gly	Pro	Pro	Gly	Pro
		50				55					60				
Pro	Gly	Pro	Pro	Gly	Pro	Pro	Gly	Leu	Gly	Gly	Asn	Phe	Ala	Ala	Gln
65					70				75					80	
Tyr	Asp	Gly	Lys	Gly	Val	Gly	Leu	Gly	Pro	Gly	Pro	Met	Gly	Leu	Met
			85					90						95	
Gly	Pro	Arg	Gly	Pro	Pro	Gly	Ala	Ala	Gly	Ala	Pro	Gly	Pro	Gln	Gly
			100					105					110		
Phe	Gln	Gly	Pro	Ala	Gly	Glu	Pro	Gly	Glu	Pro	Gly	Gln	Thr	Gly	Pro
		115					120					125			
Ala	Gly	Ala	Arg	Gly	Pro	Ala	Gly	Pro	Pro	Gly	Lys	Ala	Gly	Glu	Asp
		130				135					140				
Gly	His	Pro	Gly	Lys	Pro	Gly	Arg	Pro	Gly	Glu	Arg	Gly	Val	Val	Gly
145					150				155					160	
Pro	Gln	Gly	Ala	Arg	Gly	Phe	Pro	Gly	Thr	Pro	Gly	Leu	Pro	Gly	Phe
			165					170						175	
Lys	Gly	Ile	Arg	Gly	His	Asn	Gly	Leu	Asp	Gly	Leu	Lys	Gly	Gln	Pro
			180				185						190		
Gly	Ala	Pro	Gly	Val	Lys	Gly	Glu	Pro	Gly	Ala	Pro	Gly	Glu	Asn	Gly
		195					200					205			
Thr	Pro	Gly	Gln	Thr	Gly	Ala	Arg	Gly	Leu	Pro	Gly	Glu	Arg	Gly	Arg
		210				215					220				
Val	Gly	Ala	Pro	Gly	Pro	Ala	Gly	Ala	Arg	Gly	Ser	Asp	Gly	Ser	Val
225					230				235					240	

Gly	Pro	Val	Gly	Pro	Ala	Gly	Pro	Ile	Gly	Ser	Ala	Gly	Pro	Pro	Gly
				245					250					255	
Phe	Pro	Gly	Ala	Pro	Gly	Pro	Lys	Gly	Glu	Ile	Gly	Ala	Val	Gly	Asn
			260					265					270		
Ala	Gly	Pro	Ala	Gly	Pro	Ala	Gly	Pro	Arg	Gly	Glu	Val	Gly	Leu	Pro
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Gly	Leu	Ser	Gly	Pro	Val	Gly	Pro	Pro	Gly	Asn	Pro	Gly	Ala	Asn	Gly
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Leu	Thr	Gly	Ala	Lys	Gly	Ala	Ala	Gly	Leu	Pro	Gly	Val	Ala	Gly	Ala
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Pro	Gly	Leu	Pro	Gly	Pro	Arg	Gly	Ile	Pro	Gly	Pro	Val	Gly	Ala	Ala
				325					330					335	
Gly	Ala	Thr	Gly	Ala	Arg	Gly	Leu	Val	Gly	Glu	Pro	Gly	Pro	Ala	Gly
			340					345					350		
Ser	Lys	Gly	Glu	Ser	Gly	Asn	Lys	Gly	Glu	Pro	Gly	Ser	Ala	Gly	Pro
		355					360					365			
Gln	Gly	Pro	Pro	Gly	Pro	Ser	Gly	Glu	Glu	Gly	Lys	Arg	Gly	Pro	Asn
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Gly	Glu	Ala	Gly	Ser	Ala	Gly	Pro	Pro	Gly	Pro	Pro	Gly	Leu	Arg	Gly
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Ser	Pro	Gly	Ser	Arg	Gly	Leu	Pro	Gly	Ala	Asp	Gly	Arg	Ala	Gly	Val
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Met	Gly	Pro	Pro	Gly	Ser	Arg	Gly	Ala	Ser	Gly	Pro	Ala	Gly	Val	Arg
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Gly	Pro	Asn	Gly	Asp	Ala	Gly	Arg	Pro	Gly	Glu	Pro	Gly	Leu	Met	Gly
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Pro	Arg	Gly	Leu	Pro	Gly	Ser	Pro	Gly	Asn	Ile	Gly	Pro	Ala	Gly	Lys
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Gly	Pro	Ala	Gly	Ala	Arg	Gly	Glu	Pro	Gly	Asn	Ile	Gly	Phe	Pro	Gly
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Pro	Lys	Gly	Pro	Thr	Gly	Asp	Pro	Gly	Lys	Asn	Gly	Asp	Lys	Gly	His
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Ala	Gly	Leu	Ala	Gly	Ala	Arg	Gly	Ala	Pro	Gly	Pro	Asp	Gly	Asn	Asn
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Gly	Ala	Gln	Gly	Pro	Pro	Gly	Pro	Gln	Gly	Val	Gln	Gly	Gly	Lys	Gly
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Glu	Gln	Gly	Pro	Ala	Gly	Pro	Pro	Gly	Phe	Gln	Gly	Leu	Pro	Gly	Pro
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Ser	Gly	Pro	Ala	Gly	Glu	Val	Gly	Lys	Pro	Gly	Glu	Arg	Gly	Leu	His
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Gly	Glu	Phe	Gly	Leu	Pro	Gly	Pro	Ala	Gly	Pro	Arg	Gly	Glu	Arg	Gly
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Pro	Pro	Gly	Glu	Ser	Gly	Ala	Ala	Gly	Pro	Thr	Gly	Pro	Ile	Gly	Ser
		595					600					605			
Arg	Gly	Pro	Ser	Gly	Pro	Pro	Gly	Pro	Asp	Gly	Asn	Lys	Gly	Glu	Pro
	610					615					620				
Gly	Val	Val	Gly	Ala	Val	Gly	Thr	Ala	Gly	Pro	Ser	Gly	Pro	Ser	Gly
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Leu	Pro	Gly	Glu	Arg	Gly	Ala	Ala	Gly	Ile	Pro	Gly	Gly	Lys	Gly	Glu
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Lys	Gly	Glu	Pro	Gly	Leu	Arg	Gly	Glu	Ile	Gly	Asn	Pro	Gly	Arg	Asp
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		675					680					685			
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	690					695					700				
Ala	Gly	Pro	Arg	Gly	Ser	Pro	Gly	Glu	Arg	Gly	Glu	Val	Gly	Pro	Ala
705					710					715					720
Gly	Pro	Asn	Gly	Phe	Ala	Gly	Pro	Ala	Gly	Ala	Ala	Gly	Gln	Pro	Gly

Tyr Arg Ser Ser Lys Asp Lys Lys His Val Trp Leu Gly Glu Thr Ile
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 Asn Ala Gly Ser Gln Phe Glu Tyr Asn Val Glu Gly Val Thr Ser Lys
 1235 1240 1245
 Glu Met Ala Thr Gln Leu Ala Phe Met Arg Leu Leu Ala Asn Tyr Ala
 1250 1255 1260
 Ser Gln Asn Ile Thr Tyr His Cys Lys Asn Ser Ile Ala Tyr Met Asp
 1265 1270 1275 1280
 Glu Glu Thr Gly Asn Leu Lys Lys Ala Val Ile Leu Gln Gly Ser Asn
 1285 1290 1295
 Asp Val Glu Leu Val Ala Glu Gly Asn Ser Arg Phe Thr Tyr Thr Val
 1300 1305 1310
 Leu Val Asp Gly Cys Ser Lys Lys Thr Asn Glu Trp Gly Lys Thr Ile
 1315 1320 1325
 Ile Glu Tyr Lys Thr Asn Lys Pro Ser Arg Leu Pro Phe Leu Asp Ile
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 <212> DNA
 <213> Homo sapiens

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<210> 267
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 <212> PRT
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<400> 267
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 Ala Leu Lys Ala Thr His Cys Leu Ala Ala Thr His Trp Ser Pro Ser
 35 40 45
 Cys Pro Pro Gln Gln Val Phe Gly Asp Leu Asp Gln Val Arg Met Thr
 50 55 60
 Ser Glu Gly Ser Asp Cys Arg Cys Lys Cys Ile Met Arg Pro Leu Ser
 65 70 75 80
 Lys Asp Ala Cys Ser Arg Val Arg Ser Gly Arg Ala Arg Val Glu Asp
 85 90 95
 Phe Tyr Thr Val Glu Thr Val Ser Ser Gly Thr Asp Cys Arg Cys Ser
 100 105 110
 Cys Thr Ala Pro Pro Ser Ser Leu Asn Pro Cys Glu Asn Glu Trp Lys
 115 120 125
 Met Glu Lys Leu Lys Lys Gln Ala Pro Glu Leu Leu Lys Leu Gln Ser
 130 135 140
 Met Val Asp Leu Leu Glu Gly Thr Leu Tyr Ser Met Asp Leu Met Lys
 145 150 155 160
 Val His Ala Tyr Val His Lys Val Ala Ser Gln Met Asn Thr Leu Glu
 165 170 175
 Glu Ser Ile Lys Ala Asn Leu Ser Arg Glu Asn Glu Val Val Lys Asp
 180 185 190
 Ser Val Arg His Leu Ser Glu Gln Leu Arg His Tyr Glu Asn His Ser
 195 200 205
 Ala Ile Met Leu Gly Ile Lys Lys Glu Leu Ser Arg Leu Gly Leu Gln
 210 215 220
 Leu Leu Gln Lys Asp Ala Ala Ala Pro Ala Thr Pro Ala Thr Gly
 225 230 235 240
 Thr Gly Ser Lys Ala Gln Asp Thr Ala Arg Gly Lys Gly Lys Asp Ile
 245 250 255
 Ser Lys Tyr Gly Ser Val Gln Lys Ser Phe Ala Asp Arg Gly Leu Pro
 260 265 270
 Lys Pro Pro Lys Glu Lys Leu Leu Gln Val Glu Lys Leu Arg Lys Glu
 275 280 285
 Ser Gly Lys Gly Ser Phe Leu Gln Pro Thr Ala Lys Pro Arg Ala Leu
 290 295 300
 Ala Gln Gln Gln Ala Val Ile Arg Gly Phe Thr Tyr Tyr Lys Ala Gly
 305 310 315 320
 Lys Gln Glu Val Thr Glu Ala Val Ala Asp Asn Thr Leu Gln Gly Thr
 325 330 335
 Ser Trp Leu Glu Gln Leu Pro Pro Lys Val Glu Gly Arg Ser Asn Ser
 340 345 350
 Ala Glu Pro Asn Ser Ala Glu Gln Asp Glu Ala Glu Pro Arg Ser Ser
 355 360 365
 Glu Arg Val Asp Leu Ala Ser Gly Thr Pro Thr Ser Ile Pro Ala Thr
 370 375 380
 Thr Thr Thr Ala Thr Thr Pro Thr Pro Thr Thr Ser Leu Leu Pro
 385 390 395 400
 Thr Glu Pro Pro Ser Gly Pro Glu Val Ser Ser Gln Gly Arg Glu Ala
 405 410 415
 Ser Cys Glu Gly Thr Leu Arg Ala Val Asp Pro Pro Val Arg His His
 420 425 430

Ser Tyr Gly Arg His Glu Gly Ala Trp Met Lys Asp Pro Ala Ala Arg
 435 440 445
 Asp Asp Arg Ile Tyr Val Thr Asn Tyr Tyr Tyr Gly Asn Ser Leu Val
 450 455 460
 Glu Phe Arg Asn Leu Glu Asn Phe Lys Gln Gly Arg Trp Ser Asn Met
 465 470 475 480
 Tyr Lys Leu Pro Tyr Asn Trp Ile Gly Thr Gly His Val Val Tyr Gln
 485 490 495
 Gly Ala Phe Tyr Asn Arg Ala Phe Thr Lys Asn Ile Ile Lys Tyr
 500 505 510
 Asp Leu Arg Gln Arg Phe Val Ala Ser Trp Ala Leu Leu Pro Asp Val
 515 520 525
 Val Tyr Glu Asp Thr Thr Pro Trp Lys Trp Arg Gly His Ser Asp Ile
 530 535 540
 Asp Phe Ala Val Asp Glu Ser Gly Leu Trp Val Ile Tyr Pro Ala Val
 545 550 555 560
 Asp Asp Arg Asp Glu Ala Gln Pro Glu Val Ile Val Leu Ser Arg Leu
 565 570 575
 Asp Pro Gly Asp Leu Ser Val His Arg Glu Thr Thr Trp Lys Thr Arg
 580 585 590
 Leu Arg Arg Asn Ser Tyr Gly Asn Cys Phe Leu Val Cys Gly Ile Leu
 595 600 605
 Tyr Ala Val Asp Thr Tyr Asn Gln Gln Glu Gly Gln Val Ala Tyr Ala
 610 615 620
 Phe Asp Thr His Thr Gly Thr Asp Ala Arg Pro Gln Leu Pro Phe Leu
 625 630 635 640
 Asn Glu His Ala Tyr Thr Thr Gln Ile Asp Tyr Asn Pro Lys Glu Arg
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 675

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 <211> 1909
 <212> DNA
 <213> Homo sapiens

<400> 268
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ccttgccct	gttctccct	tcctcttctc	cctttgcaag	aggaaatatt	taacatattt	1440
gggtccaact	tcaataatgt	aataattaat	acattaaaag	catttaactt	cctttctaga	1500
aaaatgcaca	ggctaaggca	tagacaaaac	aaagagaaat	gctgagaaat	ttgccactgg	1560
agacaagcaa	tctgaataaa	tatttgccaa	aagttctttt	tatgtcatat	agtgtcagga	1620
tttgaaggag	ctattttttt	taatgttgca	actagcaact	catcttcgga	agacacagcc	1680
aggagaatga	agtagaagt	aaaggtttat	aaatccattt	gtaagcattt	atcccatata	1740
ttttaaatc	aagaaaaatt	gtgtttatct	ttagaatttt	gtattcaata	ctttatgtac	1800
tatgtgactc	atgcttctgg	ataaataaag	caccaaatat	gtatctgtaa	ccacaatcac	1860
acatattata	ttaaatatat	atctatataa	caaaaaaaaa	aaaaaaaaa		1909

<210> 269
 <211> 83
 <212> PRT
 <213> Homo sapiens

<400> 269

Met	Tyr	Gly	Asn	Ile	Leu	Cys	Pro	Thr	Leu	His	Thr	Leu	Cys	Thr	Gln
1			5					10					15		
Ile	Leu	Tyr	Cys	Met	Asn	Tyr	Ala	Leu	Ser	Arg	Ile	Gln	Cys	Gln	Gly
			20					25				30			
Glu	Leu	Gly	Glu	Ile	Asn	Tyr	Phe	Asn	Phe	Phe	Phe	Ile	Leu	Tyr	Lys
		35					40					45			
Ala	Met	Asp	Phe	Ile	Trp	Leu	Met	Cys	Ala	Leu	Tyr	Thr	Ser	His	Phe
	50					55					60				
Asn	Arg	Met	Glu	Leu	Leu	Ile	Ile	Phe	Gln	Arg	Val	Ile	Asp	Met	Gln
65				70					75					80	
Lys	Phe	Gln													

<210> 270
 <211> 1720
 <212> DNA
 <213> Homo sapiens

<400> 270

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ctatgtcagt	tgggtgtgtt	ctgcttatgt	tagggtaatt	gggcacggcc	tttgtgtaac	120
tgggtgaatat	ctctgaacct	gggcatgaaa	cagagagatg	tcctaactct	gggtgagagg	180
aatcctcatt	tttctctgcc	ctctcactgt	ggcaccctaa	gaaaaaagtt	ttgggttcct	240
gcagcatgaa	ggagagctct	gctcccagaa	tttggagact	ccagatttct	tccaggggtg	300
ggaggcatca	atatatcagt	ctgggaaaag	ggttcctggg	ccactccagg	agctgagttg	360
ggtggaaggt	gctgagagt	tgggtggggg	ccacttctga	gcacccatgt	ggcaccact	420
gctggtccct	gtttgtggct	gggcactcag	gaaaatgttt	ttggtgctaa	gagtaaaaag	480
ccaaccaaca	aacacatctc	ttttttctgt	ctattcactg	gaaagtaaaa	gcagtctggg	540
cgcaggctgg	ggaccagat	ggaattcaaa	cttatgcctg	ctctcaagg	gctcacggtt	600
gctgataaac	agctggataa	aatgaagagt	ctatgagtga	gggatgcaga	gccagggaag	660
gctggtggag	tgatgccacc	agcacagggg	tatgagtttg	cagctgccaa	ggggccaagg	720
gatgagctgg	ggcctcctt	cccaatggca	tctcccctg	gtctggaact	gaagacactg	780
agcaatggtc	cccaagcccc	aaggagatca	gctcccctgg	gccagtggtc	cccaaccagg	840
gaggggtgtg	agaatgcctg	cttctcctca	gaggagcatg	agaccattt	ccagaaccct	900
gggaacacga	gactgggcag	ctcaccaggt	ccccctggg	gtgtctctc	actgccccga	960
tcccagcggg	atgatctgtc	ccttcattca	gaggaggggc	cagccctgga	gcccgtgagc	1020
cgcccgggtg	attatggctt	tgtttccgcc	ctcgttttcc	tgggtgagtg	gattcttctg	1080
gtggtgacag	catacgccat	cccccgtag	gctcgagtca	atccggacac	agtgcagcgc	1140
cgggagatgg	aacgactgga	gatgtactac	gcccgcctag	gctcccacct	ggacaggtgc	1200
atcatcgcag	gcctcgggct	gctcacgggt	ggcggcatgc	tctgtcgggt	gctgctcatg	1260
gtctccctgt	gcaagggcga	gctgtaccgc	cggaggacct	tcgtccccgg	caagggctcc	1320
aggaagacct	acggctccat	taacctgcgc	atgagacagc	tcaatgggga	tgggggccag	1380
gccctgggtg	agaatgaagt	tgtccagggt	tcagagacta	gccacacctt	ccagaggtct	1440
taagaactag	cccaccttat	ctggctgctt	tagctccagt	gctacaaggt	ccacccctg	1500

ctcccgccca	cctgaccct	gccaaagccc	tggggtttta	aactgagctc	acatagggcc	1560
ttgtggaaga	agtactgggt	gctggaggga	gagctcgggg	cccagcccat	gccccacacg	1620
ggcaagcagc	ccactgatct	gtttttagtc	tgagggtttg	catacggttt	tgtttgagg	1680
atggcttctg	ctgctaaaaa	tacaaaagtt	tggaaccgc			1720

<210> 271
 <211> 256
 <212> PRT
 <213> Homo sapiens

<400> 271

Met	Pro	Pro	Ala	Gln	Gly	Tyr	Glu	Phe	Ala	Ala	Ala	Lys	Gly	Pro	Arg
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Asp	Glu	Leu	Gly	Pro	Ser	Phe	Pro	Met	Ala	Ser	Pro	Pro	Gly	Leu	Glu
			20					25					30		
Leu	Lys	Thr	Leu	Ser	Asn	Gly	Pro	Gln	Ala	Pro	Arg	Arg	Ser	Ala	Pro
		35					40					45			
Leu	Gly	Pro	Val	Ala	Pro	Thr	Arg	Glu	Gly	Val	Glu	Asn	Ala	Cys	Phe
	50					55					60				
Ser	Ser	Glu	Glu	His	Glu	Thr	His	Phe	Gln	Asn	Pro	Gly	Asn	Thr	Arg
65					70				75					80	
Leu	Gly	Ser	Ser	Pro	Ser	Pro	Pro	Gly	Gly	Val	Ser	Ser	Leu	Pro	Arg
				85				90					95		
Ser	Gln	Arg	Asp	Asp	Leu	Ser	Leu	His	Ser	Glu	Glu	Gly	Pro	Ala	Leu
			100					105					110		
Glu	Pro	Val	Ser	Arg	Pro	Val	Asp	Tyr	Gly	Phe	Val	Ser	Ala	Leu	Val
		115					120						125		
Phe	Leu	Val	Ser	Gly	Ile	Leu	Leu	Val	Val	Thr	Ala	Tyr	Ala	Ile	Pro
	130					135					140				
Arg	Glu	Ala	Arg	Val	Asn	Pro	Asp	Thr	Val	Thr	Ala	Arg	Glu	Met	Glu
145					150				155					160	
Arg	Leu	Glu	Met	Tyr	Tyr	Ala	Arg	Leu	Gly	Ser	His	Leu	Asp	Arg	Cys
				165				170					175		
Ile	Ile	Ala	Gly	Leu	Gly	Leu	Leu	Thr	Val	Gly	Gly	Met	Leu	Leu	Ser
			180					185					190		
Val	Leu	Leu	Met	Val	Ser	Leu	Cys	Lys	Gly	Glu	Leu	Tyr	Arg	Arg	Arg
		195					200					205			
Thr	Phe	Val	Pro	Gly	Lys	Gly	Ser	Arg	Lys	Thr	Tyr	Gly	Ser	Ile	Asn
	210					215					220				
Leu	Arg	Met	Arg	Gln	Leu	Asn	Gly	Asp	Gly	Gly	Gln	Ala	Leu	Val	Glu
225					230					235				240	
Asn	Glu	Val	Val	Gln	Val	Ser	Glu	Thr	Ser	His	Thr	Leu	Gln	Arg	Ser
				245				250					255		

<210> 272
 <211> 1111
 <212> DNA
 <213> Homo sapiens

<400> 272

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ctgagcaggc	ggaggccgac	aagaaggcgg	cggaagacag	gagcaagcag	ctggaagatg	180
agctgggtgc	actgcaaaag	aaactcaagg	gcaccgaaga	tgaactggac	aaatactctg	240
aggctctcaa	agatgcccag	gagaagctgg	agctggcaga	gaaaaaggcc	accgatgctg	300
aagccgacgt	agcttctctg	aacagacgca	tccagctggg	tgaggaagag	ttggatcgatg	360
cccaggagcg	tctggcaaca	gctttgcaga	agctggagga	agctgagaag	gcagcagatg	420
agagtggagag	aggcatgaaa	gtcattgaga	gtcagagccca	aaaagatgaa	gaaaaaatgg	480
aaattcagga	gatccaactg	aaagaggcca	agcacattgc	tgaagatgcc	gaccgcaaatt	540
acgaagaggt	ggcccgtaa	ctggctcatca	ttgagagcga	cctggaacgt	gcagaggagc	600
gggctgagct	ctcagaaggc	aaatgtgccg	agcttgaaga	agaattgaaa	actgtgacga	660

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acaacttgaa gtcactggag gctcaggctg agaagtactc gcagaaggaa gacagatatg      720
aggaagagat caaggtcctt tccgacaagc tgaaggaggc tgagactcgg gctgagtttg      780
cggagagggtc agtaactaaa ttggagaaaa gcattgatga cttagaagac gagctgtacg      840
ctcagaaact gaagtacaaa gccatcagcg aggagctgga ccacgctctc aacgatatga      900
cttccatata agtttctttg cttcacttct cccaagactc cctcgtcggag ctggatgtcc      960
cacctctctg agctctgcat ttgtctattc tccagctgac cctggttctc tctcttagca    1020
tctgcctta gagccaggca cacactgtgc tttctattgt acagaagctc ttcgtttcag    1080
tgtcaataaa acactgtgta agctaaaaaa a                                1111

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<210> 273
<211> 284
<212> PRT
<213> Homo sapiens

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<400> 273
Met Asp Ala Ile Lys Lys Lys Met Gln Met Leu Lys Leu Asp Lys Glu
 1          5          10          15
Asn Ala Leu Asp Arg Ala Glu Gln Ala Glu Ala Asp Lys Lys Ala Ala
 20          25          30
Glu Asp Arg Ser Lys Gln Leu Glu Asp Glu Leu Val Ser Leu Gln Lys
 35          40          45
Lys Leu Lys Gly Thr Glu Asp Glu Leu Asp Lys Tyr Ser Glu Ala Leu
 50          55          60
Lys Asp Ala Gln Glu Lys Leu Glu Leu Ala Glu Lys Lys Ala Thr Asp
 65          70          75          80
Ala Glu Ala Asp Val Ala Ser Leu Asn Arg Arg Ile Gln Leu Val Glu
 85          90          95
Glu Glu Leu Asp Arg Ala Gln Glu Arg Leu Ala Thr Ala Leu Gln Lys
100          105          110
Leu Glu Glu Ala Glu Lys Ala Ala Asp Glu Ser Glu Arg Gly Met Lys
115          120          125
Val Ile Glu Ser Arg Ala Gln Lys Asp Glu Glu Lys Met Glu Ile Gln
130          135          140
Glu Ile Gln Leu Lys Glu Ala Lys His Ile Ala Glu Asp Ala Asp Arg
145          150          155          160
Lys Tyr Glu Glu Val Ala Arg Lys Leu Val Ile Ile Glu Ser Asp Leu
165          170          175
Glu Arg Ala Glu Glu Arg Ala Glu Leu Ser Glu Gly Lys Cys Ala Glu
180          185          190
Leu Glu Glu Glu Leu Lys Thr Val Thr Asn Asn Leu Lys Ser Leu Glu
195          200          205
Ala Gln Ala Glu Lys Tyr Ser Gln Lys Glu Asp Arg Tyr Glu Glu Glu
210          215          220
Ile Lys Val Leu Ser Asp Lys Leu Lys Glu Ala Glu Thr Arg Ala Glu
225          230          235          240
Phe Ala Glu Arg Ser Val Thr Lys Leu Glu Lys Ser Ile Asp Asp Leu
245          250          255
Glu Asp Glu Leu Tyr Ala Gln Lys Leu Lys Tyr Lys Ala Ile Ser Glu
260          265          270
Glu Leu Asp His Ala Leu Asn Asp Met Thr Ser Ile
275          280

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<210> 274
<211> 2032
<212> DNA
<213> Homo sapiens

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<400> 274
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ccgcacgctc cccgcgcggc ggccaccatg agcacaggcc tgcggtacaa gagcaagctg    120
gcgaccccgag aggacaagca ggacattgac aagcagtacg tgggcttcgc cacactgccc    180

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aaccaggtgc	accgcaagtc	ggtgaagaaa	ggctttgact	tcacactcat	ggtggctggt	240
gagtcaggcc	tggggaagtc	cacactggtc	cacagcctct	tcctgacaga	cttgtacaag	300
gaccggaagc	tgctcagtc	tgaggagcgc	atcagccaga	cggtagagat	tctaaaacac	360
acggtggaca	ttgaggagaa	gggagtcagg	ctgaagctca	ccatcgtgga	cacgccggga	420
ttcggggacg	ctgtcaacaa	caccgagtcg	tggaagccca	tcaccgacta	tgtggaccag	480
cagtttgagc	agtacttccg	tgatgagagc	ggcctcaacc	gaaagaacat	ccaagacaac	540
cgagtgcact	gctgcctata	cttcattctc	cccttcgggc	atgggctgcg	gccagtggat	600
gtgggtttca	tgaaggcatt	gcatgagaag	gtcaacatcg	tgccctctcat	cgccaaagct	660
gactgtcttg	tccccagtg	gatccggaag	ctgaaggagc	ggatccggga	ggagattgac	720
aagtttgagg	tccatgtata	ccagttccct	gagtggtgact	cggacgagga	tgaggacttc	780
aagcagcagg	accgggaact	gaaggagagc	gcgccttcg	ccgttatagg	cagcaacacg	840
gtggtggagg	ccaaggggca	gcgggtccgg	ggccgactgt	acccctgggg	gatcgtggag	900
gtggagaacc	aggcgcatcg	cgacttcgtg	aagctgcgca	acatgctcat	ccgcacgcat	960
atgcacgacc	tcaaggacgt	gacgtgogac	gtgcactacg	agaactaccg	cgcgcactgc	1020
atccagcaga	tgaccagcaa	actgacccag	gacagccgca	tggagagccc	catccccgatc	1080
ctgccgctgc	ccaccccggg	cgccgagact	gagaagctta	tcaggatgaa	ggatgaggaa	1140
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tcgccgcgga	cacaccgtcc	gtctccggga	cgccctcgca	cccctggaca	ccagaccgga	1260
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accacccct	cccaggtcat	tgtgtctgtt	tcggaggggc	ctggaccgta	gccccgccc	1380
agctggccct	ctctgacctt	gggggatcag	gagcgaagtt	gggcgggact	tcagagatcc	1440
gcctcccttg	ccctcccccc	gcccccgagc	ggtcacagca	cccaaaccgc	aggccctgct	1500
ctggcaggga	ggcaaagcta	ggcagaagag	gattcccagg	atcctgggtc	tgttccctgc	1560
cccagtgtcg	cagaacggac	ttgggagccc	tcctttgcct	gctcccgcgg	gtcaccacgc	1620
gagtgtctgag	acccccattt	ctgtcgaggc	gggcccagtc	ttcccttatc	cccagacgcc	1680
tagcgggcag	ggttgggctg	aatcaaatgg	gagccctcca	gacataagga	ggccagaggg	1740
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ggcccccggg	gcactgggcg	gtgagccacc	tcctggcaac	tctcggtgcc	gtccccctgcc	1860
ctcgctcgag	gcctcttctc	cccagcaccg	ctgtggtgtg	ccgggatcct	gagcctaggc	1920
ctcccgatgt	tcccacccgc	atgatccctt	cccgccacac	gatgtccctg	tttcttccgt	1980
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<210> 275
 <211> 369
 <212> PRT
 <213> Homo sapiens

<400> 275

Met	Ser	Thr	Gly	Leu	Arg	Tyr	Lys	Ser	Lys	Leu	Ala	Thr	Pro	Glu	Asp
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Lys	Gln	Asp	Ile	Asp	Lys	Gln	Tyr	Val	Gly	Phe	Ala	Thr	Leu	Pro	Asn
			20					25					30		
Gln	Val	His	Arg	Lys	Ser	Val	Lys	Lys	Gly	Phe	Asp	Phe	Thr	Leu	Met
		35					40					45			
Val	Ala	Gly	Glu	Ser	Gly	Leu	Gly	Lys	Ser	Thr	Leu	Val	His	Ser	Leu
	50					55					60				
Phe	Leu	Thr	Asp	Leu	Tyr	Lys	Asp	Arg	Lys	Leu	Leu	Ser	Ala	Glu	Glu
65					70					75				80	
Arg	Ile	Ser	Gln	Thr	Val	Glu	Ile	Leu	Lys	His	Thr	Val	Asp	Ile	Glu
			85						90					95	
Glu	Lys	Gly	Val	Lys	Leu	Lys	Leu	Thr	Ile	Val	Asp	Thr	Pro	Gly	Phe
			100					105					110		
Gly	Asp	Ala	Val	Asn	Asn	Thr	Glu	Cys	Trp	Lys	Pro	Ile	Thr	Asp	Tyr
		115					120					125			
Val	Asp	Gln	Gln	Phe	Glu	Gln	Tyr	Phe	Arg	Asp	Glu	Ser	Gly	Leu	Asn
	130					135					140				
Arg	Lys	Asn	Ile	Gln	Asp	Asn	Arg	Val	His	Cys	Cys	Leu	Tyr	Phe	Ile
145					150					155				160	
Ser	Pro	Phe	Gly	His	Gly	Leu	Arg	Pro	Val	Asp	Val	Gly	Phe	Met	Lys
				165					170					175	
Ala	Leu	His	Glu	Lys	Val	Asn	Ile	Val	Pro	Leu	Ile	Ala	Lys	Ala	Asp

[illegible]

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<210> 276
<211> 1344
<212> DNA
<213> Homo sapiens
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<400>	276					
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ttccttgaaa	catttttttt	tatctgcctg	tagctattgg	gataaattcg	gaaatccaca	240
gggacagttc	aagtcattct	tgtcctctac	tttctgttgc	actctcagcc	ttgtttctct	300
tttagaaact	gcattggaac	tattatatag	ctaaagaaga	gcattctgac	ctctgccctg	360
ggacttcctg	gatcctctct	ttctttataa	tacaagggca	gagcttggat	cccgggggagc	420
caggaagcag	tgagcccagg	agtcctcggc	cagccctgcc	tgcccacag	gaggatgaag	480
gtctccgtgg	ctgcctctct	ctgcctcatg	cttgttgctg	tccttggatc	cagggccag	540
ttcacaaaatg	atgcagagac	agagttaatg	atgtcaaagc	ttccactgga	aaatccagta	600
gttctgaaca	gctttcactt	tgctgctgac	tgctgcacct	cctacatctc	acaaagcatc	660
ccgtgtttac	tcatgaaaag	ttattttgaa	acgagcagcg	agtgtctcaa	gccaggtgtc	720
atatttctca	ccaagaaggg	gccgcaagtc	tgtgccaaac	ccagtgtgtc	gggagtctag	780
gatttgcaga	aaaagctgaa	gccctactca	atataataat	aaagagacaa	aagaggccag	840
ccaccacact	ccaacacctc	ctgagcctct	gaagctccca	ccaggccagc	tctctctcca	900
caacagcttc	ccacagcatg	aagatctccg	tggttgccat	tccttctctc	ctctctcatca	960
ccatcgccct	agggaccaag	actgaatctc	cctcaggggg	accttaccac	ccctcagagt	1020
gctgtctcac	ctacataacc	tacaagatcc	cgcgtcagcg	gattatggat	tactatgaga	1080
ccaacagcca	gtgtctcaag	cccggaattg	tcttcatcac	caaaaggggc	cattccgtct	1140
gtaccaaccc	cagtgacaag	tgggtccagg	actatatcaa	ggacatgaag	gagaactgag	1200
tgacccagaa	ggggtggcga	aggcacagct	cagagacata	aagagaagat	gccaaggccc	1260
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aattaaagac	cactcatgct	cttc				1344

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<210> 277
<211> 93
<212> PRT
<213> Homo sapiens
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<400> 277

Met	Lys	Ile	Ser	Val	Ala	Ala	Ile	Pro	Phe	Phe	Leu	Leu	Ile	Thr	Ile
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Ala	Leu	Gly	Thr	Lys	Thr	Glu	Ser	Ser	Ser	Arg	Gly	Pro	Tyr	His	Pro
			20					25					30		
Ser	Glu	Cys	Cys	Phe	Thr	Tyr	Thr	Thr	Tyr	Lys	Ile	Pro	Arg	Gln	Arg
		35					40				45				
Ile	Met	Asp	Tyr	Tyr	Glu	Thr	Asn	Ser	Gln	Cys	Ser	Lys	Pro	Gly	Ile
	50					55					60				
Val	Phe	Ile	Thr	Lys	Arg	Gly	His	Ser	Val	Cys	Thr	Asn	Pro	Ser	Asp
65					70					75					80
Lys	Trp	Val	Gln	Asp	Tyr	Ile	Lys	Asp	Met	Lys	Glu	Asn			
				85					90						

<210> 278
 <211> 1344
 <212> DNA
 <213> Homo sapiens

<400> 278

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tagtccccca	ctcctatctc	aggcttagag	gattagatta	atctcctgga	gggaagactc	180
ttccttgaaa	catttttttt	tatctgcctg	tagctattgg	gataattcgg	gaaatccaca	240
gggacagtgc	aagtcacctt	tgtcctctac	tttctgttgc	actctcagcc	ttgttctctt	300
tttagaaaact	gcatggtaac	tattatatag	ctaaagaaga	gcattctgac	ctctgccctg	360
ggacttcctg	gacccctctc	ttcttataaa	tacaagggca	gagctggtat	cccggggagc	420
caggaagcag	tgagcccagg	agtcctcggc	cagccctgcc	tgcccaccag	gaggatgaag	480
gtctccgtgg	ctgccctctc	ctgacctcatg	cttggttgctg	tccttggtatc	ccaggcccag	540
ttcacaaaatg	atgcagagac	agagttaatg	atgtcaaagc	ttccactgga	aaatccagta	600
gtttctgaaca	gcttttcaact	tgctgctgac	tgctgcacct	cctacatctc	acaaagcatc	660
ccgtgtttcac	tcattgaaaag	ttattttgaa	acgagcagcg	agtgtctcaa	gccaggtgtc	720
atattcctca	ccaagaaggg	gctggcaagtc	tgtgccaac	ccagtgggtcc	gggagttcag	780
gattgcatga	aaaagctgaa	gccctactca	atataataat	aaagagacaa	aagaggccag	840
ccaccacact	ccaacacctc	ctgagcctct	gaagctccca	ccaggccagc	tctcctccca	900
caacagcttc	ccacagcatg	aagatctccg	tggtgacct	tcccttcttc	ctcctcatca	960
ccatgcgcct	agggaccaag	actgaatcct	cctcacgggg	accttaccac	ccctcagagt	1020
gctgcttcac	ctacactaac	tacaagatcc	cgcgtcagcg	gattatggat	tactatgaga	1080
ccaacagcca	gtgctccaag	cccgggaattg	tcttcatcac	caaaaggggc	cattccgtct	1140
gtaccaaccc	cagtgacaag	tgggtccagg	actatatcaa	ggacatgaag	gagaactgag	1200
tgacccagaa	ggggtggcga	aggcacagct	cagagacata	aagagaagat	gccaaggccc	1260
cctcctccac	ccaccgctaa	ctctcagccc	cagtcaccct	cttgagctt	ccctgctttg	1320
aattaaagac	cactcatgct	cttc				1344

<210> 279
 <211> 93
 <212> PRT
 <213> Homo sapiens

<400> 279

Met	Lys	Ile	Ser	Val	Ala	Ala	Ile	Pro	Phe	Phe	Leu	Leu	Ile	Thr	Ile
1				5					10					15	
Ala	Leu	Gly	Thr	Lys	Thr	Glu	Ser	Ser	Ser	Arg	Gly	Pro	Tyr	His	Pro
			20					25					30		
Ser	Glu	Cys	Cys	Phe	Thr	Tyr	Thr	Thr	Tyr	Lys	Ile	Pro	Arg	Gln	Arg
		35					40				45				
Ile	Met	Asp	Tyr	Tyr	Glu	Thr	Asn	Ser	Gln	Cys	Ser	Lys	Pro	Gly	Ile
	50					55					60				
Val	Phe	Ile	Thr	Lys	Arg	Gly	His	Ser	Val	Cys	Thr	Asn	Pro	Ser	Asp
65					70					75					80
Lys	Trp	Val	Gln	Asp	Tyr	Ile	Lys	Asp	Met	Lys	Glu	Asn			

<210> 280
 <211> 1344
 <212> DNA
 <213> Homo sapiens

<400> 280

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ctggaaaagg	aaaaaaggca	gcattcacca	catcccaatc	ctgaatccaa	gagtctaaga	120
tagtccccca	ctcctatctc	aggcttagag	gattagatta	atctcctgga	gggaagactc	180
ttccttgaaa	catttttttt	tatctgcctg	tagctattgg	gataattcgg	gaaatccaca	240
gggacagttc	aagtcattct	tgtcctctac	tttctgttgc	actctcagcc	ttgttctctt	300
tttagaaact	gcatggtaac	tattatatag	ctaaagaaga	gcattctgac	ctctgccctg	360
ggacttctct	gattcctctc	ttcttataaa	tacaagggca	gagctgggtat	cccggggagc	420
caggaagcag	tgagcccagg	agtcctcggc	cagccctgcc	tgcccaccag	gaggatgaag	480
gtctccgtgg	ctgccctctc	ctgcctcatg	cttggttgctg	tccttggatc	ccaggcccag	540
ttcacaaatg	atgcagagac	agagttaatg	atgtcaaagc	ttccactgga	aaatccagta	600
gttctgaaca	gctttcactt	tgctgctgac	tgctgcacct	cctacatctc	acaaagcatc	660
ccgtgttcac	tcattgaaaag	ttattttgaa	acgagcagcg	agtgtctcaa	gccaggtgtc	720
atattcctca	ccaagaaggg	gcggcaagtc	tgtgccaaac	ccagtgggtcc	gggagttcag	780
gattgcatga	aaaagctgaa	gccctactca	atataataat	aaagagacaa	aagaggccag	840
ccaccacact	ccaacacctc	ctgagcctct	gaagctccca	ccaggccagc	tctcctccca	900
caacagcttc	ccacagcatg	aagatctccg	tggttgccat	tcccttcttc	ctcctcatca	960
ccatcgccct	agggaccaag	actgaatcct	cctcacgggg	accttaccac	ccctcagagt	1020
gctgcttcac	ctacactacc	tacaagatcc	cgcgtcagcg	gattatggat	tactatgaga	1080
ccaacagcca	gtgctccaag	cccgggaattg	tcttcatcac	caaaaggggc	cattccgtct	1140
gtaccaaccc	cagtgacaag	tgggtccagg	actatatcaa	ggacatgaag	gagaactgag	1200
tgacccagaa	ggggtggcga	aggcacagct	cagagacata	aagagaagat	gccaaggccc	1260
cctcctccac	ccaccgctaa	ctctcagccc	cagtcaccct	cttggagctt	ccctgctttg	1320
aattaaagac	cactcatgct	cttc				1344

<210> 281
 <211> 93
 <212> PRT
 <213> Homo sapiens

<400> 281

Met	Lys	Ile	Ser	Val	Ala	Ala	Ile	Pro	Phe	Phe	Leu	Leu	Ile	Thr	Ile
1				5					10					15	
Ala	Leu	Gly	Thr	Lys	Thr	Glu	Ser	Ser	Arg	Gly	Pro	Tyr	His	Pro	
			20				25				30				
Ser	Glu	Cys	Cys	Phe	Thr	Tyr	Thr	Thr	Tyr	Lys	Ile	Pro	Arg	Gln	Arg
		35				40					45				
Ile	Met	Asp	Tyr	Tyr	Glu	Thr	Asn	Ser	Gln	Cys	Ser	Lys	Pro	Gly	Ile
	50				55					60					
Val	Phe	Ile	Thr	Lys	Arg	Gly	His	Ser	Val	Cys	Thr	Asn	Pro	Ser	Asp
	65				70					75				80	
Lys	Trp	Val	Gln	Asp	Tyr	Ile	Lys	Asp	Met	Lys	Glu	Asn			
			85					90							

<210> 282
 <211> 2750
 <212> DNA
 <213> Homo sapiens

<400> 282

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atcggcgccg	ccaaggccct	gctggcgtgg	ctggaccgat	tgctatttta	tgtgtcactt	120
gagagaaaac	agttaaataa	aaactaattt	aatacaaaaat	ttagctgggc	ttggtggcac	180
atgcctgtaa	tcccagctac	tcgggaggct	gaagcaggag	agttgcttga	acctgggagg	240

cgtagattgc	agttagccaa	gatcatccca	ctgcactcca	gcctgggcca	cagagtgaga	300
cacagtctca	aacaaaaaaa	aacaaaaagg	aatttagagt	agcccatggg	gtagctatgc	360
ttaccaacat	ccagtgggat	ccccgtggat	tctccctacc	cctttttaag	aggattgttg	420
ctaccttcta	gggtcccgtt	tacagggatc	actgatttct	cagtcacgaa	gaacaaaatt	480
atccagcttt	gcttggacct	gaccactaca	gtccagaagg	attgctttgt	agcggaaatg	540
gaggataaag	ttttaactgt	ggtcaagggt	ttaaattggca	tctgtgacaa	aacaatccga	600
tctaccacag	atcctgtgat	gagccagtgt	gcatgtctgg	aggaagtcca	cttaccacaa	660
attaaacctg	gggaaggcct	gggcatgtac	atcaaatcaa	cctatgatgg	gttacacgtg	720
attactggaa	ccacagaaaa	ttctcctgca	gacagatctc	agaagattca	tgctgggtgac	780
gaagtcattc	aagttaataca	gcaaactgtg	gtgggatggc	agctgaaaaa	tctgggtgaag	840
aaattgagag	agaatcccac	cggagtgtgt	ttactgctta	agaagcgccc	caccgggtct	900
ttcaacttta	ctctgtctcc	cctgaaaaac	ctacgggtga	agccacctct	tgtacagacc	960
tcacctccac	ccgcgacaac	ccagtcccct	gaaagcacta	tggatacctc	actgaagaag	1020
gagaagtcag	ccatcctgga	tctttatatt	cctcctccgc	ctgctgttcc	ctactctccc	1080
cgggatgaga	atggcagttt	tgtttatgga	gggtccagta	agtgcacaaa	accattgcct	1140
ggtcctaagg	gttcagagtc	cccgaattcc	ttcttgacc	aggaaagccg	gagacgaaga	1200
ttcaccattg	cagactcgga	tcagttgcct	gggtactcgg	tggaaaccaa	cattctgccc	1260
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gatgggaact	ggatggggat	tgtggaccct	tttgccagac	ctcgaggtca	tggcaggaaa	1380
ggggaggatg	ccctttgccg	gtatttcagt	aacgagcgga	ttcctccgat	cattgaagag	1440
agctcctctc	ccccataccg	gttctccaga	cccacgaccg	agcggcatct	ggtccggggg	1500
goggactaca	tccgaggaag	caggtgctac	atcaactcag	atctccacag	cagcgccacg	1560
attccattcc	aggaggaagg	gacaaaaaag	aaatctggct	cctcagctac	gaagtcctcg	1620
tccacagaac	cgctcctcct	ggtcagctgg	tttacgcgcc	tcaaactgtt	gactactga	1680
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agaggatctt	aggtgctggc	ttgtggagac	aaaaggaggg	aaatgggtag	agcctgtttg	1920
tcttgcttcc	ccagagatag	aatgtgaaga	cacgcgctag	aaatcgagct	cctggccaga	1980
gacgttatgg	tcattgtgag	ggactgggtg	cattgttccct	ttttgagggg	ctgggggggac	2040
tcaaattggg	ggctgttttc	acacagatgt	gttggtttgt	ggtccaactt	ctttatctga	2100
aaaagccagt	gagaaaaacat	ttttgatttg	atttttctaa	actatctacc	atattttaag	2160
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gtttaagtgt	aggcctgtta	cacttgtttg	ataccttttt	catgacagtc	tcagtataga	2280
tcagttggta	cagaaatata	tgaacacatt	ttgatagggc	ttatttcaca	caaagaagtt	2340
tatggttatt	tgtgtggggg	gggtgtgtta	tatattattg	tctttaaggg	aaaagaagct	2400
ataagattcg	ctgacagcca	aagtatcatt	tagaaaagtg	aagaacaaga	tttaggttga	2460
tgaagataac	atgagtttgc	attttgacct	gttcagtgtc	tgtcttccag	cacgggtgtgt	2520
acacttcttc	aaaattgtac	acagtttgct	aattagaaat	atcttggaag	gcctcatggt	2580
cactaatttt	caactagcat	caggtatatt	gaaaacgtgt	gtctggatat	taactcttgt	2640
ttaaactgaa	tgtatgat	tttggttagaa	tggaaaagta	ctatcttgtt	aatttaagta	2700
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<210> 283

<211> 380

<212> PRT

<213> Homo sapiens

<220>

<221> VARIANT

<222> (1)...(380)

<223> Xaa = Any Amino Acid

<400> 283

Met	Glu	Asp	Lys	Val	Leu	Thr	Val	Val	Lys	Val	Leu	Asn	Gly	Ile	Cys
1			5						10					15	
Asp	Lys	Thr	Ile	Arg	Ser	Thr	Thr	Asp	Pro	Val	Met	Ser	Gln	Cys	Ala
			20					25					30		
Cys	Leu	Glu	Glu	Val	His	Leu	Pro	Asn	Ile	Lys	Pro	Gly	Glu	Gly	Leu
		35				40					45				
Gly	Met	Tyr	Ile	Lys	Ser	Thr	Tyr	Asp	Gly	Leu	His	Val	Ile	Thr	Gly

50	Thr	Thr	Glu	Asn	Ser	Pro	Ala	Asp	Arg	Ser	Gln	Lys	Ile	His	Ala	Gly
65	Asp	Glu	Val	Ile	Gln	Val	Asn	Gln	Gln	Thr	Val	Val	Gly	Trp	Gln	Leu
				85	Lys	Lys	Leu	Arg	Glu	Asn	Pro	Thr	Gly	Val	Val	Leu
			100						105					110		
	Leu	Leu	Lys	Lys	Arg	Pro	Thr	Gly	Ser	Phe	Asn	Phe	Thr	Pro	Ala	Pro
			115					120					125			
	Leu	Lys	Asn	Leu	Arg	Trp	Lys	Pro	Pro	Leu	Val	Gln	Thr	Ser	Pro	Pro
			130				135					140				
	Pro	Ala	Thr	Thr	Gln	Ser	Pro	Glu	Ser	Thr	Met	Asp	Thr	Ser	Leu	Lys
145					150						155					160
	Lys	Glu	Lys	Ser	Ala	Ile	Leu	Asp	Leu	Tyr	Ile	Pro	Pro	Pro	Pro	Ala
				165						170					175	
	Val	Pro	Tyr	Ser	Pro	Arg	Asp	Glu	Asn	Gly	Ser	Phe	Val	Tyr	Gly	Gly
			180						185					190		
	Ser	Ser	Lys	Cys	Lys	Gln	Pro	Leu	Pro	Gly	Pro	Lys	Gly	Ser	Glu	Ser
			195					200					205			
	Pro	Asn	Ser	Phe	Leu	Asp	Gln	Glu	Ser	Arg	Arg	Arg	Arg	Phe	Thr	Ile
			210				215						220			
	Ala	Asp	Ser	Asp	Gln	Leu	Pro	Gly	Tyr	Ser	Val	Glu	Thr	Asn	Ile	Leu
225					230						235					240
	Pro	Thr	Lys	Met	Arg	Glu	Lys	Thr	Pro	Ser	Tyr	Xaa	Lys	Pro	Arg	Pro
				245						250					255	
	Leu	Ser	Met	Pro	Ala	Asp	Gly	Asn	Trp	Met	Gly	Ile	Val	Asp	Pro	Phe
			260						265					270		
	Ala	Arg	Pro	Arg	Gly	His	Gly	Arg	Lys	Gly	Glu	Asp	Ala	Leu	Cys	Arg
			275				280						285			
	Tyr	Phe	Ser	Asn	Glu	Arg	Ile	Pro	Pro	Ile	Ile	Glu	Glu	Ser	Ser	Ser
			290				295					300				
	Pro	Pro	Tyr	Arg	Phe	Ser	Arg	Pro	Thr	Thr	Glu	Arg	His	Leu	Val	Arg
305					310						315					320
	Gly	Ala	Asp	Tyr	Ile	Arg	Gly	Ser	Arg	Cys	Tyr	Ile	Asn	Ser	Asp	Leu
				325						330					335	
	His	Ser	Ser	Ala	Thr	Ile	Pro	Phe	Gln	Glu	Glu	Gly	Thr	Lys	Lys	Lys
			340						345				350			
	Ser	Gly	Ser	Ser	Ala	Thr	Lys	Ser	Ser	Ser	Thr	Glu	Pro	Ser	Leu	Leu
			355				360						365			
	Val	Ser	Trp	Phe	Thr	Arg	Leu	Lys	Leu	Leu	Thr	His				
			370				375					380				

<210> 284
 <211> 1789
 <212> DNA
 <213> Homo sapiens

<400> 284	gggttcaggaa	cctgctggtt	ctgatacata	aatcagacag	cctctgctgc	atgacacgaa	60
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	tcctcattgg	ctgatggatc	ccaaggggct	cctctccttg	accttcgtgc	tgtttctctc	180
	cctggctttt	ggggcaagct	acggaacagg	tgggcgcatg	atgaactgcc	caaagattct	240
	ccggcagttg	ggaagcaaag	tgctgctgcc	cctgacatat	gaaaggataa	ataagagcat	300
	gaacaaaagc	atccacattg	tcgtcacaat	ggcaaaatca	ctggagaaca	gtgtcgagaa	360
	caaaatagtg	tctcttgatc	catccgaagc	aggccctcca	cgttatctag	gagatcgcta	420
	caagttttat	ctggagaatc	tcaccctggg	gatacgggaa	agcaggaagg	aggatgaggg	480
	atggtacctt	atgaccctgg	agaaaaatgt	ttcagttcag	cgcttttgcc	tgagtttgag	540
	gctttatgag	caggtctcca	ctccagaaat	taaagtttta	aacaagaccc	aggagaacgg	600
	gacctgcacc	ttgatactgg	gctgcacagt	ggagaagggg	gacctgtgtg	cttacagctg	660
	gagtgaagag	gcgggcaccc	acccactgaa	cccagccaac	agctcccacc	tcctgtccct	720
	caccctcggc	ccccagcatg	ctgacaatat	ctacatctgc	accgtgagca	accctatcag	780

caacaattcc	cagaccttca	gcccgtggcc	cggatgcagg	acagaccctt	cagaaacaaa	840
accatgggca	gtgtatgctg	ggctgttagg	gggtgtcatc	atgattctca	tcatgggtgt	900
aatactacag	ttgagaagaa	gaggtaaaac	gaaccattac	cagacaacag	tggaaaaaaa	960
aagccttacg	atctatgccc	aagtccagaa	accaggctct	cttcagaaga	aacttgactc	1020
cttcccagct	caggaccctt	gcaccacat	atatgttgct	gccacagagc	ctgtcccaga	1080
gtctgtccag	gaaacaaatt	ccatcacagt	ctatgctagt	gtgacacttc	cagagagctg	1140
acaccagaga	ccaacaaagg	gactttctga	aggaaaatgg	aaaaaccaa	atgaacactg	1200
aacttggcca	caggeccaag	tttcctctgg	cagacatgct	gcacgtctgt	acccttctca	1260
gatcaactcc	ctgggtgatgt	ttcttcacac	tacatctgtg	aaatgaacaa	ggaagtgagg	1320
cttcccaga	atcttagcttg	ctgtgcagtg	gctgcaggcg	cagaacagag	cgttacttga	1380
taacagcggt	ccatctttgt	gtttagtagc	atgaaatgga	cagtaatgtg	agttcagact	1440
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tgagtaccta	tctcacacac	tgaccaccag	tcacaaagtc	tggaaaagtt	tacattttgg	1560
ctatctttac	tttgttctgg	gagctgatca	tgataacctg	cagacctgat	caagcctctg	1620
tgccctcagtt	tctctctcag	gataaagagt	gaatagagggc	cgaagggtga	atttcttatt	1680
atacataaaa	cactctgata	ttattgtata	aaggaagcta	agaatattat	tttatttgca	1740
aaaccagaa	gctaaaaagt	caataaacag	aaagaatgat	tttgagaaa		1789

<210> 285
 <211> 335
 <212> PRT
 <213> Homo sapiens

<400> 285

Met	Asp	Pro	Lys	Gly	Leu	Leu	Ser	Leu	Thr	Phe	Val	Leu	Phe	Leu	Ser
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Leu	Ala	Phe	Gly	Ala	Ser	Tyr	Gly	Thr	Gly	Gly	Arg	Met	Met	Asn	Cys
			20					25					30		
Pro	Lys	Ile	Leu	Arg	Gln	Leu	Gly	Ser	Lys	Val	Leu	Leu	Pro	Leu	Thr
			35				40					45			
Tyr	Glu	Arg	Ile	Asn	Lys	Ser	Met	Asn	Lys	Ser	Ile	His	Ile	Val	Val
	50					55					60				
Thr	Met	Ala	Lys	Ser	Leu	Glu	Asn	Ser	Val	Glu	Asn	Lys	Ile	Val	Ser
65					70					75				80	
Leu	Asp	Pro	Ser	Glu	Ala	Gly	Pro	Pro	Arg	Tyr	Leu	Gly	Asp	Arg	Tyr
				85					90				95		
Lys	Phe	Tyr	Leu	Glu	Asn	Leu	Thr	Leu	Gly	Ile	Arg	Glu	Ser	Arg	Lys
			100					105					110		
Glu	Asp	Glu	Gly	Trp	Tyr	Leu	Met	Thr	Leu	Glu	Lys	Asn	Val	Ser	Val
			115				120					125			
Gln	Arg	Phe	Cys	Leu	Gln	Leu	Arg	Leu	Tyr	Glu	Gln	Val	Ser	Thr	Pro
			130				135					140			
Glu	Ile	Lys	Val	Leu	Asn	Lys	Thr	Gln	Glu	Asn	Gly	Thr	Cys	Thr	Leu
145					150					155					160
Ile	Leu	Gly	Cys	Thr	Val	Glu	Lys	Gly	Asp	His	Val	Ala	Tyr	Ser	Trp
				165					170					175	
Ser	Glu	Lys	Ala	Gly	Thr	His	Pro	Leu	Asn	Pro	Ala	Asn	Ser	Ser	His
			180					185					190		
Leu	Leu	Ser	Leu	Thr	Leu	Gly	Pro	Gln	His	Ala	Asp	Asn	Ile	Tyr	Ile
			195				200					205			
Cys	Thr	Val	Ser	Asn	Pro	Ile	Ser	Asn	Asn	Ser	Gln	Thr	Phe	Ser	Pro
	210					215					220				
Trp	Pro	Gly	Cys	Arg	Thr	Asp	Pro	Ser	Glu	Thr	Lys	Pro	Trp	Ala	Val
225					230					235					240
Tyr	Ala	Gly	Leu	Leu	Gly	Gly	Val	Ile	Met	Ile	Leu	Ile	Met	Val	Val
				245					250					255	
Ile	Leu	Gln	Leu	Arg	Arg	Arg	Gly	Lys	Thr	Asn	His	Tyr	Gln	Thr	Thr
			260					265					270		
Val	Glu	Lys	Lys	Ser	Leu	Thr	Ile	Tyr	Ala	Gln	Val	Gln	Lys	Pro	Gly
			275				280					285			
Pro	Leu	Gln	Lys	Lys	Leu	Asp	Ser	Phe	Pro	Ala	Gln	Asp	Pro	Cys	Thr

290						295						300				
Thr	Ile	Tyr	Val	Ala	Ala	Thr	Glu	Pro	Val	Pro	Glu	Ser	Val	Gln	Glu	
305					310					315					320	
Thr	Asn	Ser	Ile	Thr	Val	Tyr	Ala	Ser	Val	Thr	Leu	Pro	Glu	Ser		
				325					330					335		

<210> 286
 <211> 305
 <212> PRT
 <213> Homo sapiens

<400> 286

Met	Asp	Pro	Lys	Gly	Leu	Leu	Ser	Leu	Thr	Phe	Val	Leu	Phe	Leu	Ser
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Leu	Ala	Phe	Gly	Ala	Ser	Tyr	Gly	Thr	Gly	Gly	Arg	Met	Met	Asn	Cys
			20					25					30		
Pro	Lys	Ile	Leu	Arg	Gln	Leu	Gly	Ser	Lys	Val	Leu	Leu	Pro	Leu	Thr
			35				40					45			
Tyr	Glu	Arg	Ile	Asn	Lys	Ser	Met	Asn	Lys	Ser	Ile	His	Ile	Val	Val
	50				55						60				
Thr	Met	Ala	Lys	Ser	Leu	Glu	Asn	Ser	Val	Glu	Asn	Lys	Ile	Val	Ser
65					70					75					80
Leu	Asp	Pro	Ser	Glu	Ala	Gly	Pro	Pro	Arg	Tyr	Leu	Gly	Asp	Arg	Tyr
				85					90					95	
Lys	Phe	Tyr	Leu	Glu	Asn	Leu	Thr	Leu	Gly	Ile	Arg	Glu	Ser	Arg	Lys
			100				105						110		
Glu	Asp	Glu	Gly	Trp	Tyr	Leu	Met	Thr	Leu	Glu	Lys	Asn	Val	Ser	Val
			115				120					125			
Gln	Arg	Phe	Cys	Leu	Gln	Leu	Arg	Leu	Tyr	Glu	Gln	Val	Ser	Thr	Pro
	130				135						140				
Glu	Ile	Lys	Val	Leu	Asn	Lys	Thr	Gln	Glu	Asn	Gly	Thr	Cys	Thr	Leu
145					150					155					160
Ile	Leu	Gly	Cys	Thr	Val	Glu	Lys	Gly	Asp	His	Val	Ala	Tyr	Ser	Trp
				165					170					175	
Ser	Glu	Lys	Ala	Gly	Thr	His	Pro	Leu	Asn	Pro	Ala	Asn	Ser	Ser	His
			180					185					190		
Leu	Leu	Ser	Leu	Thr	Leu	Gly	Pro	Gln	His	Ala	Asp	Asn	Ile	Tyr	Ile
			195				200					205			
Cys	Thr	Val	Ser	Asn	Pro	Ile	Ser	Asn	Asn	Ser	Gln	Thr	Phe	Ser	Pro
	210				215						220				
Trp	Pro	Gly	Cys	Arg	Thr	Asp	Pro	Ser	Gly	Lys	Thr	Asn	His	Tyr	Gln
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Thr	Thr	Val	Glu	Lys	Lys	Ser	Leu	Thr	Ile	Tyr	Ala	Gln	Val	Gln	Lys
				245					250					255	
Pro	Gly	Pro	Leu	Gln	Lys	Lys	Leu	Asp	Ser	Phe	Pro	Ala	Gln	Asp	Pro
			260					265					270		
Cys	Thr	Thr	Ile	Tyr	Val	Ala	Ala	Thr	Glu	Pro	Val	Pro	Glu	Ser	Val
		275				280						285			
Gln	Glu	Thr	Asn	Ser	Ile	Thr	Val	Tyr	Ala	Ser	Val	Thr	Leu	Pro	Glu
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Ser
305

<210> 287
 <211> 298
 <212> PRT
 <213> Homo sapiens

<400> 287

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 20 25 30
 Pro Lys Ile Leu Arg Gln Leu Gly Ser Lys Val Leu Leu Pro Leu Thr
 35 40 45
 Tyr Glu Arg Ile Asn Lys Ser Met Asn Lys Ser Ile His Ile Val Val
 50 55 60
 Thr Met Ala Lys Ser Leu Glu Asn Ser Val Glu Asn Lys Ile Val Ser
 65 70 75 80
 Leu Asp Pro Ser Glu Ala Gly Pro Pro Arg Tyr Leu Gly Asp Arg Tyr
 85 90 95
 Lys Phe Tyr Leu Glu Asn Leu Thr Leu Gly Ile Arg Glu Ser Arg Lys
 100 105 110
 Glu Asp Glu Gly Trp Tyr Leu Met Thr Leu Glu Lys Asn Val Ser Val
 115 120 125
 Gln Arg Phe Cys Leu Gln Leu Arg Leu Tyr Glu Gln Val Ser Thr Pro
 130 135 140
 Glu Ile Lys Val Leu Asn Lys Thr Gln Glu Asn Gly Thr Cys Thr Leu
 145 150 155 160
 Ile Leu Gly Cys Thr Val Glu Lys Gly Asp His Val Ala Tyr Ser Trp
 165 170 175
 Ser Glu Lys Ala Gly Thr His Pro Leu Asn Pro Ala Asn Ser Ser His
 180 185 190
 Leu Leu Ser Leu Thr Leu Gly Pro Gln His Ala Asp Asn Ile Tyr Ile
 195 200 205
 Cys Thr Val Ser Asn Pro Ile Ser Asn Asn Ser Gln Thr Phe Ser Pro
 210 215 220
 Trp Pro Gly Cys Arg Thr Asp Pro Ser Glu Thr Lys Pro Trp Ala Val
 225 230 235 240
 Tyr Ala Gly Leu Leu Gly Gly Val Ile Met Ile Leu Ile Met Val Val
 245 250 255
 Ile Leu Gln Leu Arg Arg Arg Gly Lys Thr Asn His Tyr Gln Thr Thr
 260 265 270
 Val Glu Lys Lys Ser Leu Thr Ile Tyr Ala Gln Val Gln Lys Pro Gly
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 Asp Thr His His Gln Thr Ser Asp Leu Phe
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<210> 288
 <211> 3640
 <212> DNA
 <213> Homo sapiens

<400> 288
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 <211> 628
 <212> PRT
 <213> Homo sapiens

<400> 289
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 35 40 45
 Ala Asp Thr Thr Cys Gly Gln Asn Ala Thr Glu Leu Tyr Cys Phe Tyr
 50 55 60
 Ser Glu Asn Thr Asp Leu Thr Cys Arg Gln Pro Lys Cys Asp Lys Cys
 65 70 75 80
 Asn Ala Ala Tyr Pro His Leu Ala His Leu Pro Ser Ala Met Ala Asp

Thr Cys Pro Ile Leu Asn Pro Gly Leu Glu Tyr Leu Val Ala Gly His
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Glu Asp Ile Arg Thr Gly Lys Leu Ile Val Asn Met Lys Ser Phe Val
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Arg Glu Cys Lys
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<211> 2540
<212> DNA
<213> Mouse

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<210> 291
<211> 765

<212> PRT
<213> Mouse

<400> 291

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			20					25					30		
Ser	Cys	Tyr	Ala	Leu	Phe	Pro	Arg	Arg	Arg	Thr	Phe	Leu	Glu	Ala	Trp
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Arg	Ala	Cys	Arg	Glu	Leu	Gly	Gly	Asn	Leu	Ala	Thr	Pro	Arg	Thr	Pro
	50					55					60				
Glu	Glu	Ala	Gln	Arg	Val	Asp	Ser	Leu	Val	Gly	Val	Gly	Pro	Ala	Asn
65					70					75					80
Gly	Leu	Leu	Trp	Ile	Gly	Leu	Gln	Arg	Gln	Ala	Arg	Gln	Cys	Gln	Pro
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Gln	Arg	Pro	Leu	Arg	Gly	Phe	Ile	Trp	Thr	Thr	Gly	Asp	Gln	Asp	Thr
			100					105					110		
Ala	Phe	Thr	Asn	Trp	Ala	Gln	Pro	Ala	Thr	Glu	Gly	Pro	Cys	Pro	Ala
		115					120					125			
Gln	Arg	Cys	Ala	Ala	Leu	Glu	Ala	Ser	Gly	Glu	His	Arg	Trp	Leu	Glu
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Gly	Ser	Cys	Thr	Leu	Ala	Val	Asp	Gly	Tyr	Leu	Cys	Gln	Phe	Gly	Phe
145					150					155					160
Glu	Gly	Ala	Cys	Pro	Ala	Leu	Pro	Leu	Glu	Val	Gly	Gln	Ala	Gly	Pro
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Ala	Val	Tyr	Thr	Thr	Pro	Phe	Asn	Leu	Val	Ser	Ser	Glu	Phe	Glu	Trp
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Leu	Pro	Phe	Gly	Ser	Val	Ala	Ala	Val	Gln	Cys	Gln	Ala	Gly	Arg	Gly
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Ala	Ser	Leu	Leu	Cys	Val	Lys	Gln	Pro	Ser	Gly	Gly	Val	Gly	Trp	Ser
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Gln	Thr	Gly	Pro	Leu	Cys	Pro	Gly	Thr	Gly	Cys	Gly	Pro	Asp	Asn	Gly
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Gly	Cys	Glu	His	Glu	Cys	Val	Glu	Glu	Val	Asp	Gly	Ala	Val	Ser	Cys
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Arg	Cys	Ser	Glu	Gly	Phe	Arg	Leu	Ala	Ala	Asp	Gly	His	Ser	Cys	Glu
			260				265						270		
Asp	Pro	Cys	Ala	Gln	Ala	Pro	Cys	Glu	Gln	Gln	Cys	Glu	Pro	Gly	Gly
		275					280					285			
Pro	Gln	Gly	Tyr	Ser	Cys	His	Cys	Arg	Leu	Gly	Phe	Arg	Pro	Ala	Glu
	290					295					300				
Asp	Asp	Pro	His	Arg	Cys	Val	Asp	Thr	Asp	Glu	Cys	Gln	Ile	Ala	Gly
305					310					315					320
Val	Cys	Gln	Gln	Met	Cys	Val	Asn	Tyr	Val	Gly	Gly	Phe	Glu	Cys	Tyr
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Cys	Ser	Glu	Gly	His	Glu	Leu	Glu	Ala	Asp	Gly	Ile	Ser	Cys	Ser	Pro
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Ala	Gly	Ala	Met	Gly	Ala	Gln	Ala	Ser	Gln	Asp	Leu	Arg	Asp	Glu	Leu
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Leu	Asp	Asp	Gly	Glu	Glu	Gly	Glu	Asp	Glu	Glu	Glu	Pro	Trp	Glu	Asp
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Phe	Asp	Gly	Thr	Trp	Thr	Glu	Glu	Gln	Gly	Ile	Leu	Trp	Leu	Ala	Pro
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Thr	His	Pro	Pro	Asp	Phe	Gly	Leu	Pro	Tyr	Arg	Pro	Asn	Phe	Pro	Gln
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Asp	Gly	Glu	Pro	Gln	Arg	Leu	His	Leu	Glu	Pro	Thr	Trp	Pro	Pro	Pro
			420				425						430		
Leu	Ser	Ala	Pro	Arg	Gly	Pro	Tyr	His	Ser	Ser	Val	Val	Ser	Ala	Thr
		435					440					445			
Arg	Pro	Met	Val	Ile	Ser	Ala	Thr	Arg	Pro	Thr	Leu	Pro	Ser	Ala	His

450	Lys Thr Ser Val Ile	455	Ser Ala Thr Arg Pro	460	Pro Leu Ser Pro Val His
465	Pro Pro Ala Met Ala	470	Pro Ala Thr Pro	475	Val Phe Ser Glu His
	485	490	Pro Asp Leu Pro Phe Gly His	495	
Gln Ile Pro Lys Ile	500	505	Pro Ala Arg Ser	510	Pro Pro Tyr
Lys Pro Gly Ile Thr	515	520	Gln Val Phe Pro Pro His	525	
Gln Pro Pro Ile Ile	530	535	Gln Ala Pro Met Ser	540	Pro Pro His
Gln Ala Pro Met Ser	545	550	Thr His Thr Ile Thr Tyr Leu Pro Pro	555	560
Val Pro Pro His Leu	565	570	Thr Ser Lys Ala His Gln	575	
His Pro Leu Leu Pro	580	585	Gln Ala Pro Gln	590	
Leu Ser Val Ser Ala	595	600	Leu Pro Thr Asn Ser Arg Ser	605	
Ser Val His Glu Thr	610	615	Pro Ala Ala Asn Gln Pro Pro Ala Phe	620	
Pro Ser Ser Pro Leu	625	630	Pro Thr Asn Gln Thr Ser Ser	635	640
Ile Ser Pro Thr His	645	650	Pro Leu Val Pro Arg Glu	655	
Gly Val Pro Ser Pro	660	665	Gln Leu Pro Ser Val Pro Ser	670	
Thr Ala Ala Pro Thr	675	680	Glu Ser Gly Leu Ala Gly Gln Ser	685	
Gln Arg Asp Asp Arg	690	695	Leu Val Ala Leu Leu Val Pro Thr Cys	700	
Val Phe Leu Val Val	705	710	Leu Gly Ile Val Tyr Cys Thr Arg	715	720
Cys Gly Ser His Ala	725	730	Thr Asp Cys Tyr Arg Trp	735	
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 <211> 3020
 <212> DNA
 <213> Mouse

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<210> 293
 <211> 266
 <212> PRT
 <213> Mouse

<400> 293

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Ser	Ser	Ile	Val	Ser	Arg	Phe	Leu	Asn	Gly	Arg	Phe	Glu	Asp	Gln	Tyr
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Thr	Pro	Thr	Ile	Glu	Asp	Phe	His	Arg	Lys	Val	Tyr	Asn	Ile	His	Gly
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Pro	Ala	Met	Arg	Arg	Leu	Ser	Ile	Leu	Thr	Gly	Asp	Val	Phe	Ile	Leu
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Val	Phe	Ser	Leu	Asp	Ser	Arg	Glu	Ser	Phe	Asp	Glu	Val	Lys	Arg	Leu
			100					105					110		
Gln	Lys	Gln	Ile	Leu	Glu	Val	Lys	Ser	Cys	Leu	Lys	Asn	Lys	Thr	Lys
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Glu	Ala	Ala	Glu	Leu	Pro	Met	Val	Ile	Cys	Gly	Asn	Lys	Asn	Asp	His
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Ser Glu Leu Cys Arg Gln Val Pro Ala Met Glu Ala Glu Leu Leu Val
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 Ser Gly Asp Glu Asn Cys Ala Tyr Phe Glu Val Ser Ala Lys Lys Asn
 165 170 175
 Thr Asn Val Asn Glu Met Phe Tyr Val Leu Phe Ser Met Ala Lys Leu
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 Pro His Glu Met Ser Pro Ala Leu His His Lys Ile Ser Val Gln Tyr
 195 200 205
 Gly Asp Ala Phe His Pro Arg Pro Phe Cys Met Arg Arg Thr Lys Val
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 Ala Gly Ala Tyr Gly Met Val Ser Pro Phe Ala Arg Arg Pro Ser Val
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<210> 294
 <211> 5520
 <212> DNA
 <213> Mouse

<400> 294

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 <211> 1329
 <212> PRT

<213> Mouse

<400> 295

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35 40 45
Gly Gly Ala His Asn Pro Ala Arg Arg Arg Val Val Cys Gly Gly Gly
50 55 60
Asp Leu Pro Glu Pro Pro Asp Pro Gly Leu Leu Pro Asn Gly Thr Ile
65 70 75 80
Thr Leu Leu Leu Ser Asn Asn Lys Ile Thr Gly Leu Arg Asn Gly Ser
85 90 95
Phe Leu Gly Leu Ser Leu Leu Glu Lys Leu Asp Leu Arg Ser Asn Val
100 105 110
Ile Ser Thr Val Gln Pro Gly Ala Phe Leu Gly Leu Gly Glu Leu Lys
115 120 125
Arg Leu Asp Leu Ser Asn Asn Arg Ile Gly Cys Leu Thr Ser Glu Thr
130 135 140
Phe Gln Gly Leu Pro Arg Leu Leu Arg Leu Asn Ile Ser Gly Asn Ile
145 150 155 160
Tyr Ser Ser Leu Gln Pro Gly Val Phe Asp Glu Leu Pro Ala Leu Lys
165 170 175
Ile Val Asp Phe Gly Thr Glu Phe Leu Thr Cys Asp Cys Arg Leu Arg
180 185 190
Trp Leu Leu Pro Trp Ala Arg Asn His Ser Leu Gln Leu Ser Glu Arg
195 200 205
Thr Leu Cys Ala Tyr Pro Ser Ala Leu His Ala His Ala Leu Ser Ser
210 215 220
Leu Gln Glu Ser Gln Leu Arg Cys Glu Gly Ala Leu Glu Leu His Thr
225 230 235 240
His Tyr Leu Ile Pro Ser Leu Arg Gln Val Val Phe Gln Gly Asp Arg
245 250 255
Leu Pro Phe Gln Cys Ser Ala Ser Tyr Leu Gly Asn Asp Thr Arg Ile
260 265 270
His Trp Tyr His Asn Gly Ala Pro Met Glu Ser Asp Glu Gln Ala Gly
275 280 285
Ile Val Leu Ala Glu Asn Leu Ile His Asp Cys Thr Phe Ile Thr Ser
290 295 300
Glu Leu Thr Leu Ser His Ile Gly Val Trp Ala Ser Gly Glu Trp Glu
305 310 315 320
Cys Ser Val Ser Thr Val Gln Gly Asn Thr Ser Lys Lys Val Glu Ile
325 330 335
Val Val Leu Glu Thr Ser Ala Ser Tyr Cys Pro Ala Glu Arg Val Thr
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Asn Asn Arg Gly Asp Phe Arg Trp Pro Arg Thr Leu Ala Gly Ile Thr
355 360 365
Ala Tyr Gln Ser Cys Leu Gln Tyr Pro Phe Thr Ser Val Pro Leu Ser
370 375 380
Gly Gly Ala Pro Gly Thr Arg Ala Ser Arg Arg Cys Asp Arg Ala Gly
385 390 395 400
Arg Trp Glu Pro Gly Asp Tyr Ser His Cys Leu Tyr Thr Asn Asp Ile
405 410 415
Thr Arg Val Leu Tyr Thr Phe Val Leu Met Pro Ile Asn Ala Ser Asn
420 425 430
Ala Leu Thr Leu Ala His Gln Leu Arg Val Tyr Thr Ala Glu Ala Ala
435 440 445
Ser Phe Ser Asp Met Met Asp Val Val Tyr Val Ala Gln Met Ile Gln
450 455 460

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Leu	Ala	Gln	Arg	Glu	Asp	Lys	Ala	Cys	Ser	Gly	Ile	Val	Gly	Ala	Leu
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Glu	Arg	Ile	Gly	Gly	Ala	Ala	Leu	Ser	Pro	His	Ala	Gln	His	Ile	Ser
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Val	Asn	Ser	Arg	Asn	Val	Ala	Leu	Glu	Ala	Tyr	Leu	Ile	Lys	Pro	His
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Val	Ser	Gly	Ala	Gln	Pro	Ser	Ser	Val	Gly	Gln	Asp	Ala	Pro	Val	Glu
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Pro	Glu	Pro	Leu	Ala	Asp	Gln	Gln	Leu	Arg	Phe	Arg	Cys	Thr	Thr	Gly
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Arg	Pro	Asn	Ile	Ser	Leu	Ser	Ser	Phe	His	Ile	Lys	Asn	Ser	Val	Ala
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Leu	Ala	Ser	Ile	Gln	Leu	Pro	Pro	Ser	Leu	Phe	Ser	Thr	Leu	Pro	Ala
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Phe	Arg	Asn	Gly	Arg	Leu	Phe	Arg	Ser	His	Gly	Asn	Asn	Thr	Ser	Arg
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Pro	Gly	Ala	Ala	Gly	Pro	Gly	Lys	Arg	Arg	Gly	Val	Ala	Thr	Pro	Val
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Ile	Phe	Ala	Gly	Thr	Ser	Gly	Cys	Gly	Val	Gly	Asn	Leu	Thr	Glu	Pro
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Arg	Leu	Arg	Tyr	Ser	Gln	Pro	Asn	Val	Ser	Ser	Leu	Tyr	Cys	Gln	His
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Ala	Gly	Gly	Ser	Gly	Ala	Gly	Leu	His	Pro	Val	Val	Tyr	Pro	Cys	Thr
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Ala	Leu	Leu	Leu	Leu	Cys	Leu	Phe	Ser	Thr	Ile	Ile	Thr	Tyr	Ile	Leu
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785					790					795					800
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Leu	His	Tyr	Ser	Ser	Leu	Ser	Ser	Leu	Leu	Trp	Met	Gly	Val	Lys	Ala
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Arg	Val	Leu	His	Lys	Glu	Leu	Ser	Trp	Arg	Ala	Pro	Pro	Leu	Glu	Glu
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Ile	Ala	Gly	Gly	Ile	Pro	Leu	Ile	Ile	Cys	Gly	Ile	Thr	Ala	Ala	Val
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Glu Glu Leu Arg Gly Ser Thr Arg Leu Arg Ser Ser Gly Val Leu Leu						
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Asn Asp Ser Gly Ser Leu Leu Ala Thr Val Ser Ala Gly Val Gly Thr						
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 Pro Arg Glu Ser Pro Ala Gln Val Leu Lys Pro Gly Lys Thr Gln Leu
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 Ser Gln Asp Leu Gly Gly Gly Ser Leu Ala Ile Asp Thr Leu Pro Asp
 65 70 75 80
 Asn Arg Thr Arg Val Val Glu Asp Asn His Asn Tyr Tyr Val Ser Arg

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<210> 303

<211> 162

<212> PRT

<213> Mouse

<400> 303

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Ile	Gln	His	Glu	Phe	Ser	Leu	Thr	Arg	Glu	Lys	Arg	Lys	His	Val
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Leu	Ser	Asn	Gln	Pro	Tyr	Ile	Lys	Val	Leu	Thr	Leu	Ala	Asn	Phe
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Thr	Lys	Asp	Glu	Gly	Asp	Tyr	Phe	Cys	Glu	Leu	Gln	Val	Ser	Gly
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 <211> 1479
 <212> PRT
 <213> Mouse

<400> 305

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Ser	Trp	Gln	Glu	Ser	Lys	Arg	Ala	Cys	Leu	Arg	Gly	Gly	Gly	Asp	Leu
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			420						425					430	
Lys	Gln	Glu	Val	Glu	Glu	Leu	Trp	Ile	Gly	Leu	Asn	Asp	Leu	Lys	Leu
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Val	Thr	Ile	Trp	Gly	Pro	Glu	Gly	Arg	Trp	Asn	Asp	Ser	Pro	Cys	Asn
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Ala	Ala	Glu	Glu	Asp	His	Asp	Cys	Arg	Lys	Gly	Trp	Thr	Trp	His	Ser
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Glu	Leu	Gly	Ala	Gln	Leu	Leu	Ser	Leu	Ala	Ser	Tyr	Glu	Glu	Glu	His
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Phe	Val	Ala	His	Met	Leu	Asn	Lys	Ile	Phe	Gly	Glu	Ser	Glu	Pro	Glu
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Ser	His	Glu	Gln	His	Trp	Phe	Trp	Ile	Gly	Leu	Asn	Arg	Arg	Asp	Pro

Arg	Glu	Gly	His	Ser	Trp	Arg	Trp	Ser	Asp	Gly	Leu	Gly	Phe	Ser	Tyr	740	745	750
His	Asn	Phe	Ala	Arg	Ser	Arg	His	Asp	Asp	Asp	Asp	Ile	Arg	Gly	Cys	755	760	765
Ala	Val	Leu	Asp	Leu	Ala	Ser	Leu	Gln	Trp	Val	Pro	Met	Gln	Cys	Gln	770	775	780
Thr	Gln	Leu	Asp	Trp	Ile	Cys	Lys	Ile	Pro	Arg	Gly	Val	Asp	Val	Arg	785	790	795
Glu	Pro	Asp	Ile	Gly	Arg	Gln	Gly	Arg	Leu	Glu	Trp	Val	Arg	Phe	Gln	805	810	815
Glu	Ala	Glu	Tyr	Lys	Phe	Phe	Glu	His	His	Ser	Ser	Trp	Ala	Gln	Ala	820	825	830
Gln	Arg	Ile	Cys	Thr	Trp	Phe	Gln	Ala	Asp	Leu	Thr	Ser	Val	His	Ser	835	840	845
Gln	Ala	Glu	Leu	Gly	Phe	Leu	Gly	Gln	Asn	Leu	Gln	Lys	Leu	Ser	Ser	850	855	860
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Gly	Arg	Phe	Arg	Trp	Thr	Asp	Gly	Ser	Ile	Ile	Asn	Phe	Ile	Ser	Trp	885	890	895
Ala	Pro	Gly	Lys	Pro	Arg	Pro	Ile	Gly	Lys	Asp	Lys	Lys	Cys	Val	Tyr	900	905	910
Met	Thr	Ala	Arg	Gln	Glu	Asp	Trp	Gly	Asp	Gln	Arg	Cys	His	Thr	Ala	915	920	925
Leu	Pro	Tyr	Ile	Cys	Lys	Arg	Ser	Asn	Ser	Ser	Gly	Glu	Thr	Gln	Pro	930	935	940
Gln	Asp	Leu	Pro	Pro	Ser	Ala	Leu	Gly	Gly	Cys	Pro	Ser	Gly	Trp	Asn	945	950	955
Gln	Phe	Leu	Asn	Lys	Cys	Phe	Arg	Ile	Gln	Gly	Gln	Asp	Pro	Gln	Asp	965	970	975
Arg	Val	Lys	Trp	Ser	Glu	Ala	Gln	Phe	Ser	Cys	Glu	Gln	Gln	Glu	Ala	980	985	990
Gln	Leu	Val	Thr	Ile	Ala	Asn	Pro	Leu	Glu	Gln	Ala	Phe	Ile	Thr	Ala	995	1000	1005
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Gln	Arg	Asp	Phe	Gln	Trp	Ile	Glu	Gln	Glu	Pro	Leu	Leu	Tyr	Thr	Asn	1025	1030	1035
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Lys	Pro	Thr	Ser	Cys	Ala	Val	Ile	Leu	His	Ser	Pro	Ser	Ala	His	Phe	1060	1065	1070
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Thr	Pro	Pro	Ala	Pro	Gly	Ala	Glu	Leu	Ser	Tyr	Leu	Asn	His	Thr	Phe	1105	1110	1115
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Glu	Ser	Arg	Asn	Ala	Ser	Leu	Ala	His	Val	Pro	Asp	Pro	Tyr	Thr	Gln	1140	1145	1150
Ala	Phe	Leu	Thr	Gln	Ala	Ala	Arg	Gly	Leu	Gln	Thr	Pro	Leu	Trp	Ile	1155	1160	1165
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Glu	Pro	Leu	Asn	Tyr	Val	Ser	Trp	Gln	Asp	Glu	Glu	Pro	Gln	His	Ser	1185	1190	1195
Gly	Gly	Cys	Ala	Tyr	Val	Asp	Val	Asp	Gly	Thr	Trp	Arg	Thr	Thr	Ser	1205	1210	1215
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 Pro Pro Arg Arg Ile Asn Tyr Arg Gly Ser Cys Pro Gln Gly Leu Ala
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 Trp Glu His Leu Gln Thr Ala Glu Ala Gln Ser Arg Gly Ala Trp Leu
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<400> 306

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<400> 307

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Val	Lys	Asn	Ser	Met	Ser	Phe	Ser	Gly	Pro	Val	Glu	Asp	Met	Phe	Gly
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Tyr	Thr	Val	Gln	Gln	Tyr	Glu	Asn	Glu	Glu	Gly	Lys	Trp	Val	Leu	Ile
	50				55					60					
Gly	Ser	Pro	Leu	Val	Gly	Gln	Pro	Lys	Ala	Arg	Thr	Gly	Asp	Val	Tyr

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Lys	Cys	Pro	Val	Gly	Arg	Glu	Arg	Ala	Met	Pro	Cys	Val	Lys	Leu	Asp
				85					90					95	
Leu	Pro	Val	Asn	Thr	Ser	Ile	Pro	Asn	Val	Thr	Glu	Ile	Lys	Glu	Asn
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Met	Thr	Phe	Gly	Ser	Thr	Leu	Val	Thr	Asn	Pro	Asn	Gly	Gly	Phe	Leu
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Ala	Cys	Gly	Pro	Leu	Tyr	Ala	Tyr	Arg	Cys	Gly	His	Leu	His	Tyr	Thr
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Thr	Gly	Ile	Cys	Ser	Asp	Val	Ser	Pro	Thr	Phe	Gln	Val	Val	Asn	Ser
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Phe	Ala	Pro	Val	Gln	Glu	Cys	Ser	Thr	Gln	Leu	Asp	Ile	Val	Ile	Val
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Leu	Asp	Gly	Ser	Asn	Ser	Ile	Tyr	Pro	Trp	Glu	Ser	Val	Ile	Ala	Phe
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Leu	Asn	Asp	Leu	Leu	Lys	Arg	Met	Asp	Ile	Gly	Pro	Lys	Gln	Thr	Gln
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Val	Gly	Ile	Val	Gln	Tyr	Gly	Glu	Asn	Val	Thr	His	Glu	Phe	Asn	Leu
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Asn	Lys	Tyr	Ser	Ser	Thr	Glu	Glu	Val	Leu	Val	Ala	Ala	Asn	Lys	Ile
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Gly	Arg	Gln	Gly	Gly	Leu	Gln	Thr	Met	Thr	Ala	Leu	Gly	Ile	Asp	Thr
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Ala	Arg	Lys	Glu	Ala	Phe	Thr	Glu	Ala	Arg	Gly	Ala	Arg	Arg	Gly	Val
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Lys	Lys	Val	Met	Val	Ile	Val	Thr	Asp	Gly	Glu	Ser	His	Asp	Asn	Tyr
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Arg	Leu	Lys	Gln	Val	Ile	Gln	Asp	Cys	Glu	Asp	Glu	Asn	Ile	Gln	Arg
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Phe	Ser	Ile	Ala	Ile	Leu	Gly	His	Tyr	Asn	Arg	Gly	Asn	Leu	Ser	Thr
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Glu	Lys	Phe	Val	Glu	Glu	Ile	Lys	Ser	Ile	Ala	Ser	Glu	Pro	Thr	Glu
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Ser	Ala	Ala	Ser	Phe	Glu	Met	Glu	Met	Ser	Gln	Thr	Gly	Phe	Ser	Ala
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His	Tyr	Ser	Gln	Asp	Trp	Val	Met	Leu	Gly	Ala	Val	Gly	Ala	Tyr	Asp
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Trp	Asn	Gly	Thr	Val	Val	Met	Gln	Lys	Ala	Asn	Gln	Met	Val	Ile	Pro
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His	Asn	Thr	Thr	Phe	Gln	Thr	Glu	Pro	Ala	Lys	Met	Asn	Glu	Pro	Leu
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Ala	Ser	Tyr	Leu	Gly	Tyr	Thr	Val	Asn	Ser	Ala	Thr	Ile	Pro	Gly	Asp
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Val	Leu	Tyr	Ile	Ala	Gly	Gln	Pro	Arg	Tyr	Asn	His	Thr	Gly	Gln	Val
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Val	Ile	Tyr	Lys	Met	Glu	Asp	Gly	Asn	Ile	Asn	Ile	Leu	Gln	Thr	Leu
465					470					475					480
Gly	Gly	Glu	Gln	Ile	Gly	Ser	Tyr	Phe	Gly	Ser	Val	Leu	Thr	Thr	Ile
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Asp	Ile	Asp	Lys	Asp	Ser	Tyr	Thr	Asp	Leu	Leu	Leu	Val	Gly	Ala	Pro
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Met	Tyr	Met	Gly	Thr	Glu	Lys	Glu	Glu	Gln	Gly	Lys	Val	Tyr	Val	Tyr
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